Welcome to our community of scholars

At the University of Michigan School of Information, computing meets the social sciences and humanities. As a doctoral student here, you will join a community of scholars who are devoted to understanding and improving the ways in which information is collected, preserved, analyzed, shared and used.

This program is not a precursor to your scholarly career: it is the start of your scholarly career. As apprentice faculty, you will be teaching and attending conferences, conducting research and publishing papers. After graduation, you will be prepared to teach and conduct research. Recent alumni have secured academic positions at schools such as the University of Washington, the University of Maryland, and the University of Southern California. Others have taken research positions at companies such as Facebook, Google, Microsoft and MIT Lincoln Labs.

Because information has both technological and social aspects, our program is highly interdisciplinary in approach. Our faculty come from a wide range of disciplines, including computer science, library science, economics, health policy, social computing, and dozens more. They enjoy international reputations in many fields including human-computer interaction, experimental economics, digital archiving, information retrieval and health informatics.

I encourage you to learn more about us and discover what life is like for a doctoral student at UMSI. Consider joining our spirited and dedicated community of scholars who work together to connect people, information and technology in transformative ways.

Sincerely,

Paul Resnick
Doctoral Program Director

“This program is not a precursor to your scholarly career: it is the start of your scholarly career.”
COLLABORATION
From office layouts to lab meetings to practice talks, everything is organized to help you learn and succeed together with other students and faculty.

IMPACT
Faculty and students are attracted to UMSI because they aspire to understand and solve problems of practical import, in areas such as climate change, health and education.

BREADTH AND DEPTH
You will master one area, but you will also gain a broad exposure to diverse subfields of computing, the social sciences and the humanities, and learn the translation and brokering skills of interdisciplinarity.

A WORLD-CLASS INSTITUTION
You will have abundant opportunities to engage with other departments, nearly all of which are ranked in the top 10 in their fields.

SUCCESS RATE
For several years running, every UMSI PhD graduate has found employment in the teaching or research area of choice. As a graduate of this program, your future success is assured.
Ann Arbor, Michigan is one of America’s favorite cities for dozens of reasons. Great people, great spirit, a great sense of community. You’ll love living and learning here.

**#2**
Best Cities for Young Adults (2013)  
*Kiplinger*

**#2**
Top Ten College Towns (2013)  
*Livability.com*

**#4**
Most Walkable Cities (2013)  
*Governing.com*

**#5**
Happiest Cities in America (2013)  
*The Daily Beast*

**#6**
Smartest American City (2013)  
*VentureBeat*

**#6**
Best Cities for Well-Being (2014)  
*USA Today and Gallup*

**SOUTH MAIN STREET**  
One of “America’s Best Main Streets” (2014)  
*Huffington Post, Fodor’s Travel*
THE UNIVERSITY OF MICHIGAN is one of the world’s greatest public universities, located in one of the country’s most livable cities. As one of the largest public research institutions in the country, Michigan has thousands of exciting projects that encourage partnerships between students and faculty. You can be working with world-class faculty from day one.

#1 Best and Most Collaborative Large US College (2013) *Huffington Post*

#3 Best Public US University *Times Higher Education World University Rankings (2014)*

#4 Top Public Universities (2013) *US News and World Report*

#5 Top Public Colleges (2013) *Forbes*

100 of the 130 graduate programs at U-M ranked in the Top 10 by *US News and World Report, America’s Best Grad Schools (2014)*

Important to note: Established ranking systems have not quite caught up with the cutting edge of information study. Thus, ratings do not exist for all programs and areas of expertise offered at UMSI.

*BONUS! Michigan has all four seasons!*

*OK, we know that rankings can be somewhat arbitrary and biased, but honestly, year after year we make these “best of” lists.*
What can you expect as a doctoral student at the School of Information? What will your life be like?

From the very first day, you are more than a student – you are a colleague, a member of the global academy of scholars.

Our program follows an apprenticeship model. With the guidance of your faculty advisor, you will be learning to create new knowledge and disseminate it through teaching, research and publication. You will experience firsthand the life of an academic situated at a top U.S. university. Several of your courses will be seminars focused on reading recent research literature and proposing follow-on work.

Broad and flexible curriculum
During your first year, working with your advisor, you will design a course of study in the area of your interests. As a graduate student at the University of Michigan, you are free—and even encouraged—to take classes and collaborate on research projects at other schools across campus. In fact, your dissertation committee must include at least one faculty member from outside the School of Information.

Our program is broad, deep and intensely interdisciplinary. Depending on your area of focus, you may form partnerships with colleagues in the Ross School of Business, the Ford School of Public Policy, the School of Public Health, or the department of Computer Science and Engineering, to name just a few. And with 100 graduate programs at Michigan nationally ranked in the top ten, you will have the opportunity to work with the best and most noted scholars in almost any field you choose.

Real world experience
You will gain teaching experience at the undergraduate and/or graduate level. You will be conducting research with groups and independently. You will attend conferences and publish articles co-authored with fellow graduate students and faculty. UMSI doctoral students have even won Best Paper awards at conferences while enrolled in the program.

You will have access to cutting-edge information systems. Depending on your area of interests, you may work with big data storage and processing using systems such as Apache Hadoop; or with HathiTrust, the 11-million volume digital library; or with PAVEL, a virtual education lab for digital archivists – to name a few of the projects with which our faculty are involved.

From the very first day, we will work with you to shape a program that meets your needs and interests as we prepare you for a fulfilling career in academia or the research industry.
Rayoung Yang

- Personalized information system design
- Improving interaction between user and information systems

**Improving everyday living through intelligent design**

UMSI PhD candidate Rayoung Yang is interested in end-user interactions, such as with new “smart” technologies in the home. Her paper on the design challenges of the Nest Learning Thermostat earned her a Best Paper Award at CHI 2014, the Conference on Human Factors in Computing Systems.

Her interest in personalized information systems developed while working for the search engine company NAVER Corp. in Korea, where she designed and managed search services and online advertising systems. She holds 11 patents for advertising and search methods she developed at the company.

Seeking practical tools to better satisfy the growing demands of users, Rayoung decided to further her education. She chose to pursue a master’s degree in information at UMSI, attracted by the school’s professional reputation.

In the course of earning her MSI, however, her focus changed. “I wanted to do something more meaningful than search,” she says. She enrolled in the PhD program at UMSI to pursue an interest in human-computer interaction. Now in her fourth year, Rayoung has focused her research on designing tools which use context to better meet users’ interests and needs and which improve the interaction between information systems and their users.

Before coming to UMSI, Rayoung earned a BA in English language and literature and a BA in library information science from Yonsei University in Seoul, Korea.

**Doctoral advisor:** Mark Newman
Charles Senteio

• Health informatics
• Health behavior
• Sustainable models of chronic care delivery

From success to significance

Doctoral student and entrepreneur Charles Senteio is the embodiment of the philosophy “doing well by doing good.” His research and his professional work are both focused on improving health outcomes for vulnerable patients and reducing the cost of care.

After earning his MBA in 1994, Charles spent several years in the for-profit sector. “I was happy working as a corporate IT consultant,” he says, “but I decided to take the knowledge I had gained from the corporate world and move from success to significance.”

Experience he gained working with Central Dallas Ministries on urban health issues led him to ponder ways to improve chronic care for low income people and to decide, “I want to participate in fundamentally changing the way health care is delivered in this country.”

He sought a school where he could combine theory and research with practice and learned of the practitioner-oriented PhD program at the School of Information. “UMSI seemed like the ideal place for me to translate research and theory into practice to develop sustainable models of chronic care delivery,” he says.

Doctoral Advisory Committee: Tiffany Veinot, Chair; Julia Adler-Milstein, Kai Zhang

“UMSI’s culture and central campus location encourage the interdisciplinary collaboration required to foster research that results in meaningful impact in people’s lives.”

—CHARLES SENTEIO
Caitlin Holman

- Educational technology
- Motivation in education
- Learning analytics

Designing new educational methodology in and outside the classroom

Although she grew up in a family of educators, Caitlin Holman didn’t really discover the joys of teaching until she spent time as a graduate student instructor for two of Dr. Charles Severance’s courses. “I found out that I love teaching programming,” she says of her experience with SI 502. “Students come in thinking they aren’t going to like the subject and end up excited and confident, having acquired a new skill.”

Caitlin earned a BA in international affairs at the University of Maine and spent a few years working as a web developer before entering the MSI program at Michigan. Her design and development skills earned her notable recognition as a member of the team that won a U-M Library iDesign contest and another that created the UMSI ExpoSltion prize-winning project Lingua, which was also a finalist of the CHI student design competition in 2011.

At the end of her second year in the doctoral program, Caitlin garnered the Yahoo! Teaching with Technology award for her work on GradeCraft, a game-inspired learning management system which she conceived and developed with her advisor Barry Fishman and other U-M graduate students. GradeCraft, which won a grand prize in the ELI Horizon Report Video Competition, was first employed in Fishman’s Video Games and Learning course, where Caitlin was a teaching assistant. It is gradually being adopted by other university instructors and its development and implementation will form the basis of Caitlin’s dissertation.

“My research focus is on gameful learning, designing meaningful and motivational interfaces that encourage students to take ownership of their education and provide analytical tools for instructors to gauge success,” she says.

Doctoral advisors: Barry Fishman and Stephanie Teasley

“I have benefitted hugely from our outstanding and diverse faculty at UMSI and from having supportive advisors who have encouraged me to seek out mentors and collaborators across the university.”

—CAITLIN HOLMAN
Ricardo “Ricky” Punzalan, PhD ’12

- Archives and museum studies
- Virtual reunification
- Inter-institutional collaboration

In addition to completing his doctorate at the School of Information Ricky Punzalan completed two certificates of graduate studies at Michigan, one in Science, Technology, and Society (STS) and another in Museum Studies. His dissertation, “Virtual Reunification: Bits and Pieces Put Together to Form a Semblance of a Whole,” examined virtual reunification as a strategy to integrate dispersed archival images online.

Prior to beginning his doctoral work at Michigan, he held an MLIS from the University of the Philippines and was a member of the faculty of that university’s School of Library and Information Studies, where he served as assistant professor of archives and library science and museum archivist for the Vargas Museum. His articles have been published in Archival Science, Archivaria, and American Archivist.

He has developed numerous community archives during his career, including in Techiman, Ghana, where he established the archives of the traditional council and in the Philippines, where he organized the archives of Culion, a former leprosarium in the Philippines. He also curated a museum exhibit marking the centennial of Culion’s founding.

Current Position: Assistant professor in the College of Information Studies at the University of Maryland.

Doctoral advisory committee: Margaret Hedstrom, Chair; Paul Conway, Elizabeth Yakel

“The UMSI faculty was a major factor that drew me to Michigan. I wanted to work with some of the world’s leading minds in archives and digital preservation. My faculty advisors were inspirational academic role models and mentors who helped me craft an original and rigorous research agenda.”

—RICARDO “RICKY” PUNZALAN - PHD ’12
Jessica Hullman, PhD ’14

• Collaborative visual analytics
• Visualization storytelling
• Crowdsourcing

With a background that included an undergraduate degree in comparative religion, a master of fine arts in writing, and a master of science in information, Jessica Hullman found UMSI the ideal environment to support her interests in both critical analysis and creative expression.

She decided to return to the School of Information, where she had earned her MSI in 2008, after working for a year as a web analyst for an internet marketing company. While she enjoyed the job, she felt the need to delve more deeply and thoughtfully into the psychology and analytics of information.

Her doctoral research concerned interactive information visualization, exploring how visual information, such as maps and graphs, can be interpreted differently by groups and individuals, depending on factors like social influence, and how alternative representations of data sets might be used to overcome such biases. In 2012, she was awarded a Rackham Centennial Fellowship to support her research; in 2013 she was named the Outstanding PhD Student of the Year. During her time at UMSI, she also conducted visualization research at Microsoft Research and IBM Research.

Her dissertation, “Understanding and Supporting Trade-offs in the Design of Visualizations for Communication” presented three studies that demonstrate how studying expert visual design and data modeling practice can advance visualization design tools.

Current Position: Assistant professor of information visualization at the University of Washington Information School.

Doctoral advisory committee: Eytan Adar, Chair; Tom Finholt, Paul Resnick

“Don’t be afraid to bring your outside experiences to UMSI – your prior interests can inform what you do here. Don’t be afraid of learning new things, like programming. They’re empowering.”
— JESSICA HULLMAN - PHD ’14
Nikhil Sharma, PhD ’10

- Data collection
- Qualitative and statistical analysis
- User-centered design

With an undergraduate degree in architecture from Panjab University, Nikhil Sharma chose to attend the University of Michigan because it was one of the few that offered a research master’s degree in architecture. However, with an interest in research and teaching from an early age, he knew a PhD was in his future.

So, when it came time to choose a school at which to pursue his doctorate, he stayed at Michigan because “I had already seen how awesome their faculty was. I was also attracted by the variety of high quality fields of study within the university. I knew I had access to courses in computer science, design, cognitive psychology, organizational behavior and statistics.”

Early on, his focus was on design and how computers/technology can help in the process of design. “UMSI had a strong focus on studying and supporting collaboration in those days, so as time passed on, I became more and more interested in how people collaborate when looking for information,” he says. His dissertation, “Sensemaking Handoffs: Why? How? When?,” explored the factors involved when information is handed off between parties involved in completing a task.

Though his program was highly demanding, Nikhil felt encouraged at every step. “Expectations were high for publishing and teaching, but it was clear that everyone wanted us to succeed.” His fellow students were also a great source of support. “I was always pleasantly surprised by their knowledge, intelligence and willingness to help each other,” he says. “Besides the training and the degree, I built lifelong relationships with awesome faculty members and so many great students. This is what gives me the most pride.”

Following graduation, Nikhil accepted a postdoctoral research fellowship at the University of Pittsburgh, followed by a visiting professorship at Carnegie Mellon.

**Current position:** Senior User Experience Researcher at Google

**Doctoral Advisory Committee:** George Furnas and Michael Cohen, co-chairs

“The rigorous training I received at UMSI built a lot of confidence. I still haven’t come across a research problem at work that’s more challenging than my dissertation topic.”

—NIKHIL SHARMA- PHD ’10
KEVYN COLLINS-THOMPSON

“I’ve been working on information retrieval since I was 12,” says Associate Professor KEVYN COLLINS-THOMPSON, who at that early age created an Apple II program to organize more than 500 papers written by his father, a professor. “I was fascinated by the potential computers had to change the way people accessed and used information.”

An internship at Microsoft during his undergrad-uate program in computer science at the University of Waterloo led to a decade of collaboration with the company. He played key roles in developing search and display technology used by dozens of products, including Office, Windows and Encarta. He earned his PhD from Carnegie Mellon University’s Language Technologies Institute.

Before joining UMSI he spent five years as a research scientist at Microsoft Research. That work has led to a current scholarly interest: understanding and predicting people’s search needs. His research explores new advances in search technology, from systems that can use more time to find better results to search engines that help people learn how to find results on the right topics, at the right level of difficulty.

“I’d like to make a difference,” Collins-Thompson says. “So I felt at home at the School of Information right away.”
Nicole Ellison, Assistant Professor; PhD, California-Berkeley. Information and communication technology for development; assistive technology; computer-aided learning.

Early on, Associate Professor NICOLE ELLISON realized that social media was fertile ground for study. Her first paper on Facebook was published in 2006, just two years after the network was created. Since then, she has conducted numerous studies using interview, survey, and server-level data to understand how social media can build social capital and how people use it as a source of information and support. She and UMSI Associate Professor Cliff Lampe have collaborated directly with Facebook, studying how people respond to requests for help or recommendations online.

After graduating with a BA in English from Barnard, Nicole worked for a few years for a company that produced educational and cultural CD-ROMs, “which was cutting edge technology at the time,” she says. While working as content editor for the Trivial Pursuit game CD-ROM, she found she was interested in learning why and how people use information technology. She made the decision to move away from production and towards research and earned her PhD in Communication Theory and Research at the University of Southern California, one of the few schools to have a program in that field of study at the time. A dream job at Michigan State University drew her to the Midwest in 2004, where she taught before joining the UMSI faculty in 2013.

“My primary research interest is the ways in which new information technologies shape social processes, and vice versa,” she says. Her current research subjects include the effectiveness of social media to improve college access for first generation college students, how social media use can affect one’s psychological well-being, and the use of social media among middle-aged and older adults.
SILVIA LINDTNER

Assistant Professor SILVIA LINDTNER grew up in Austria and came to the US to pursue doctoral work at the University of California, Irvine. In her first year in grad school, she was part of a research team sponsored by Intel to study online gamers in China. Her interest in the creativity and initiative shown by the gaming hackers ultimately led to her dissertation on how creativity is cultivated by Chinese politicians, urban planners, and do-it-yourself (DIY) makers. She has spent the past two years in post-doctoral research as a fellow at the Intel Science and Technology Center for Social Computing (ISTC-Social) at UC Irvine and Fudan University Shanghai.

Silvia is the co-founder of Hacked Matter, a Shanghai-based research hub dedicated to investigating the process of technological innovation in China. Hacked Matter organizes workshops, lectures, panel discussions and hands-on engagements that explore questions of DIY making, manufacturing, and innovation ecosystems.

She researches, writes and teaches about DIY maker culture, with a particular focus on its intersections with manufacturing and industry development in China.
affiliated FACULTY

Steven P. Abney, Associate Professor; PhD, Massachusetts Institute of Technology. Computational linguistics; learning; syntax.

Lorraine Buis, Assistant Professor; PhD, Michigan State University. Mobile health, chronic disease self-management, health promotion.

Paul Courant, Professor; PhD, Princeton. Economics; university libraries; copyright and associated public policy.

James J. Duderstadt, U-M President Emeritus, University Professor; PhD, California Institute of Technology. Nuclear engineering; computer simulation; information technology; policy development in energy, education, and science.

Edmund Durfee, Professor; PhD, Massachusetts. Artificial intelligence, multiagent systems; collaboration between people and computational agents.

James Hilton, University Librarian and Dean of Libraries, Vice Provost for Digital Educational Initiatives, Professor; PhD, Princeton. Digital preservation; information technology policy.

Charles Friedman, Director of the Learning Health System, Professor; PhD, North Carolina. Health informatics; learning health systems; national interoperability for health information.

Jessica Litman, Professor; JD, Columbia. Law; Copyright; Internet law; trademarks and unfair competition.

Yusufcan Masatlioglu, Associate Professor; PhD, New York University. Economics; individual decision theory, game theory, microeconomic theory; experimental economics.

Desmond Patton, Assistant Professor; PhD, University of Chicago. Internet banking, social networking, human-computer interactions, computer mediated communications.

Martha E. Pollack, University Provost, Professor; PhD, Pennsylvania. Artificial intelligence; automated planning and reasoning; assistive technology for people with cognitive impairment. ACM Fellow

Kai Zheng, Acting Director of Master of Health Informatics program, Associate Professor; PhD, Carnegie Mellon. Health informatics and management; information systems in health care; human-computer interaction.

For a complete list of all faculty: umsi.info/faculty.

BARRY FISHMAN

Professor BARRY FISHMAN’s teaching and research focus on learning environments, with an emphasis on transformative teaching and learning enabled by technology, including video games as model learning environments. One of his current projects is GradeCraft, a game-inspired learning management system recently cited by the New Media Consortium Horizon Report as an exemplar of learning analytics in higher education.

In 2010, he received the Provost’s Teaching Innovation Prize for using collaboration and communication technologies to transform large lectures into small seminars, utilizing tools such as laptops and cellphones. In 2001, he received the Jan Hawkins Award for Early Career Contributions to Humanistic Research and Scholarship in Learning Technologies.

Barry earned his PhD in education and social policy at Northwestern University. He joined the U-M School of Education faculty in 1997 and for many years held a joint appointment with that school and UMSI. In 2014, he made the decision to move full-time to UMSI.

“The acceleration of information technology is creating many different potentially disruptive opportunities for learning and teaching, such as MOOCs, online learning, learning analytics and big data, mobile, personal, and social computing platforms, and the rise of maker culture,” he says. “There are people all across the university working in these areas, but the greatest concentration of talent and energy is here at UMSI. This is where we are helping to build and study next-generation learning environments.”
TAWANNA DILLAHUNT

TAWANNA DILLAHUNT doesn’t shy away from a challenge, whether it’s choosing the toughest undergraduate major she could find, computer engineering (“because if you can master that, you can master anything!”), learning to swim in order to compete in a triathlon, or earning a PhD to qualify for a research position.

As a software engineer at Intel, Tawanna sought new challenges by taking on different positions at the company. A growing interest in the research side spurred her to earn a PhD in Human-Computer Interaction from Carnegie Mellon University in 2012. Since then, she’s followed an academic path. A Presidential Post-doctoral Fellowship at the School of Information in 2013-14 led to her appointment as an assistant professor starting in fall 2014.

These days, her consuming challenge is making her research tangible and concrete in order to realize positive change in people’s lives, especially among disadvantaged populations.

“I am interested in exploring how theories from social sciences can be used to design technologies that have a positive impact on individual behavior,” she says. Her research—conducted in places like Detroit, Pittsburgh and Kenya—is focused on human-computer interaction, ubiquitous computing and social computing in the domains of environmental and economic sustainability, education and health.

FACULTY COLLABORATION

This image shows a visualization of the many points of connection between UMSI faculty in their research, publications and collaborations. To view the dynamic version, visit umsi.info/faculty-connect.

Visualization created by Associate Professor Qiaozhu Mei and a team of master’s students led by Xin Rong, PhD candidate.
Is a doctoral program right for you?
You have a bachelor’s or a master’s degree from an accredited college or university. You aced your courses but weren’t sated.

You have a passion for scholarship and the desire to dive deeply into areas that interest you. Perhaps you did the optional reading for your classes, or read the footnotes, or followed up with independent reading of scholarly material.

You’re intellectually curious, questioning and tenacious. You’re skeptical about the validity of something that “everyone knows.” Fellow students may be ready to move on to the next topic long before you’re finished with it. You stay with a problem until you find a solution and even afterward.

You are self-disciplined and self-motivated. If you have a goal and direction, you’re able to sustain your focus over long periods of time.

If you recognize yourself in this description, you may be an ideal candidate for our doctoral program.

We look forward to seeing your application.

APPLICATION DETAILS

APPLICATION DEADLINE
December 1

The School of Information doctoral program is administered by the Rackham School of Graduate Studies, which offers a convenient online application process. Details are linked from umsi.info/apply-phd.

www.rackham.umich.edu
rackadmis@umich.edu

APPLICANT CRITERIA
Ideal doctoral applicants will have
• At least a bachelor’s degree, preferably in a field relevant to their proposed area of research
• A superior academic record, with evidence of ability to engage in independent and original study in an information field
• A distinguished record of scholarship, maturity, integrity, intellectual honesty, leadership potential, professional promise and the capability of making substantive and scholarly research contributions to the field

PROGRAM FUNDING
All students admitted to the School of Information doctoral program receive financial support, including tuition, a stipend, and a health plan. Funding is guaranteed, contingent on satisfactory progress in the program. Support comes from a combination of fellowships, research, or teaching assistantships.

PROGRAM FACTS
Demographics
Total students: 60
International students: 31
Male/female ratio: 34/26
Average entering class size: 12

Time to Degree
• Two years to candidacy
• Two to four years writing dissertation

CONTACT INFORMATION
For more information about our program, please visit si.umich.edu/academics/phd-information or contact Veronica Falandino, assistant director, graduate programs, at umsi.phd.admissions@umich.edu or (734) 763-2285.
“UMSI is a great community for a non-traditional student like me. One of its great strengths is its multi-disciplinary nature. The students here get an excellent education combined with practical experience.”

TED HANSS, PHD CANDIDATE // BS, BIOLOGY, BOSTON COLLEGE
CHIEF INFORMATION OFFICER, UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

“I didn’t even consider other programs. I knew that everything I wanted was right here at Michigan.”

DHARMA AKMON, PHD ’14 // BA, HISTORY, MICHIGAN STATE UNIVERSITY
MSI, UNIVERSITY OF MICHIGAN; EDUCATION AND OUTREACH MANAGER, SEAD

“UMSI has a great mentoring program. I got to choose a mentorship from the start. Traditional economics departments in China only have advisors in the third year. It’s not as close a relationship as UMSI. That’s a major advantage of this program.”

MING JIANG, PHD CANDIDATE
// BA, ECONOMICS, BS, MATHEMATICS, JIAO TONG UNIVERSITY

“This is the perfect environment for me to learn and conduct my research. I feel completely supported here—personally, professionally, financially.”

DEVAN DONALDSON, PHD CANDIDATE
// BA HISTORY, COLLEGE OF WILLIAM AND MARY;
MSLS, UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
“The scope of your research here is much broader than in more traditional disciplines. You’re solving real-world problems.”

XIAO “TRACY” LIU, PHD ’12
// ASSISTANT PROFESSOR OF ECONOMICS, TSINGHUA UNIVERSITY, BEIJING