

PHOEBE K. CHUA

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EDUCATION

University of California, Irvine, CA

June 2021 (Expected)

Ph.D. in Informatics

- Advisors: Gillian R. Hayes and Melissa Mazmanian
- **Data Science Certificate Program**, October 2017 (Expected)
- Chair's Award for recognition of promise to make strong contributions to Informatics research

Messiah College, PA

May 2016

B.A. (Hons) in Mathematics with a Triple Minor in Computer Science, Statistics, and Music, GPA 4.0/4.0

- Trustee's Scholarship for Excellence (Merit-based full-tuition scholarship awarded to six students)
- Dr. Dorothy Gish Women in Leadership Award (Awarded to five students)
- Departmental Honors, Department of Mathematics, Physics, and Statistics (Only recipient)
- Baccalaureate Student Speaker Competition Winner (Awarded to three students)
- International Service-Learning Grant, Mulberry Foundation

University of Oxford, UK

Dec 2015

Oxford Study Abroad Program, Operations Research and Econometrics, GPA 4.0/4.0

RELEVANT EXPERIENCES

Graduate Researcher, Department of Informatics, UC Irvine

Sept 2016 – Present

Parent-Teen Interaction Study. Conducted experiments and semi-structured interviews to understand how the presence of mobile phones influences the perceived quality of interactions among parents and teens.

Dance Craft. Assisted the development and evaluation of a Kinect dance program to improve the spatial awareness of children with autism.

User Experience Research & Web Development Intern, Tandemic, Malaysia

Summer 2016

Asia Pacific Youth Innovation Challenge

- Designed and implemented UNICEF's online innovation challenge that brought together 950+ youth and senior policymakers from 29 Asia-Pacific countries to promote children's rights
- Focused on user needs by conducting usability research during each product phase
- Created the information architecture and paper prototypes before co-developing the website

SEAGULL 2016. Trained undergraduate leaders from 11 Southeast Asian countries to work with social impact organizations and address complex societal issues by applying design thinking and consultancy frameworks

Group and Research Lead, The Collaboratory for Strategic Partnerships and Applied Research, Messiah College, PA

Project and Research Lead, *Opportunities in Business and Educational Development*

2013 – 2015

- Established a partnership with the Ruth Education Centre to create a professional development program that improves the business acumen and future prospects of Burmese refugee youth in Malaysia
- Conducted interviews and integrated user feedback into the design and development process
- Funded by the Mulberry Foundation and Messiah College, this program benefits 300+ refugees every year

Group Lead, *Education Group*

2014 – 2015

- Supervised four academic empowerment projects that impacted 400+ people from underrepresented communities on four continents

Researcher, *Africa WASH and Disability Study*

June 2013

- Conducted fieldwork and user studies to facilitate business and assistive technology developments in Ghana
- Increased the potential adoption rates of assistive water tippers from 50% to 89% and latrine chairs from 40% to 89%.

TECHNICAL PROJECTS

- **3D Map** (2016). Interactive 3D map of Messiah College created with HTML, CSS, JavaScript, and Google API.
- **Block Blockers** (2015). Physics game created with Processing that teaches the effects of gravity and friction.
- **Winter Beater** (2014). Interactive program built using Python and Java that uses combinatorial optimization to determine the shortest route between buildings in Messiah College.

ADDITIONAL EXPERIENCES

Graduate Teaching Assistant, Department of Informatics and Computer Science, UC Irvine 2016 – Present

- Guided 25 Master of Human-Computer Interaction and Design (MHCID) students to understand the user's context, needs, and preferences through methods such as interviews and observations.
- Taught 105 students in User Interaction Software to develop portfolio websites and improve user experience through user research and testing

Undergraduate Teaching Assistant, Dept. of Math, Statistics, and Physics, Messiah College Jan 2013 – 2016

- Conducted review sessions open to 670 students enrolled in any mathematics and statistics courses
- Assisted faculty members with instructing labs, creating supplemental course materials, and grading

Undergraduate Computer Science Researcher, Research Experiences for Undergraduates (REU) Program, Washington University in St. Louis, MO Summer 2015

- Studied communication strategies in spontaneous teams, with applications to robotic disaster relief efforts
- Empirically and theoretically evaluated online and communication algorithms
- **Peer-Reviewed Publication:** "Coordinated versus Decentralized Exploration in Multi-Agent Multi-Armed Bandits." Chakraborty, M., Chua, P., Das, S., Juba, B. *The International Joint Conference on Artificial Intelligence (IJCAI)*. (August 2017) [acceptance rate: 26%]

Undergraduate Mathematics Researcher, REU Program, Pennsylvania State University, PA Summer 2014

- Classified intersections of max-plus closed conical hemispaces, with applications to optimization
- Implemented a max-plus algorithm using Java and modeled conical hemispaces using Maple
- **Conference Presentation:** "Classifying Intersections of Closed Conical Hemispaces." Chua, P., Kahrs, N., Zhang, Y., Nitica, V. *Mathematical Association of America EPaDel Section Meeting*. (October 2014)

LEADERSHIP EXPERIENCES

Advisor, ZimboPy, Zimbabwe 2017 – Present

- Mentored female Zimbabwean students to develop Python programs to address social challenges in Zimbabwe
- Supported the Founder President to become the first African to join the Python Software Foundation Board

Secretary and ICS Representative, ICS & Engineering DECADE Student Council, UC Irvine 2016 – Present

- Organized events to support women and underrepresented graduate students at UC Irvine

Treasurer, Multicultural Council, Messiah College Spring 2015, Spring 2016

- Managed an annual budget of \$30,000 and oversaw five umbrella organizations that promote cultural diversity
- Organized the annual International Banquet, the largest student-run banquet on campus, for 400+ people

SKILLS

User Experience Research: Qualitative and quantitative research, user experience, usability, persona development

Statistics and Mathematics: R, SAS, MATLAB

Programming: Python, Java, Processing, HTML, CSS, JavaScript

Languages: Fluent in Mandarin Chinese and Malay; Conversant in Cantonese