Esther Jang

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EDUCATION

UW
PhD student in ICTD
Expected Jun 2022 | Seattle, WA

MIT
MEng in Networks and Communications
Jun 2016 | Cambridge, MA

BSc in Electrical Engineering and Computer Science
May 2014 | Cambridge, MA
GPA: 4.7 / 5.0

COURSEWORK

GRADUATE
Human-Computer Interaction
ICTs for Development
Heterogeneous Networks
Discrete Stochastic Processes
Inference and Information
Natural Language Processing

UNDERGRADUATE
Machine Learning
Digital Communications Systems
Cellular Biophysics & Neurophysiology
Signals & Systems

SKILLS

PROGRAMMING
Python • MATLAB • Mathematica • R • C • Javascript • HTML • CSS

SPOKEN LANGUAGES
English (native) • Spanish (intermediate)
• Swahili (conversational) • Mandarin (beginner) • Korean

LINKS

PROJECT WEBSITES
Puffin Mouse http://puffinsip.com •
TZ Internet http://goo.gl/cWO5g5

PROJECT VIDEOS
Swarm Robots https://goo.gl/xUymzz

NEWS
MIT https://goo.gl/WRq2kb • **NYT** https://goo.gl/1aWSV4

RESEARCH

UW ALLEN SCHOOL OF COMPUTER SCIENCE AND ENGINEERING | Graduate Researcher
Sept 2016 – Present | Seattle, WA
Building software for cloud management and services for community cellular networks with **Dr. Kurtis Heimerl**. Deploying networks in rural Aurora, Philippines, Summer 2017.

MIT RESEARCH LABORATORY FOR ELECTRONICS (RLE) | Graduate Researcher
Jan 2015 – Jun 2016 | Cambridge, MA
Worked with **Dr. Vincent Chan** to design a delay-minimal cognitive routing algorithm with traffic estimation for metropolitan area wireless sensor networks.

UNIVERSITY OF MARYLAND COLLECTIVE DYNAMICS AND CONTROL LABORATORY | REU Undergraduate Researcher
Jun 2013 – Aug 2013 | College Park, MD
Programmed distance-based swarm behavior in miniature robots, using RSSI as distance metric. Worked with **Dr. Derek Paley** and **Dr. Sarah Bergbreiter**. Presented at 2013 Conference for Undergraduate Research in VA.

MIT GLENN LABORATORY FOR THE SCIENCE OF AGING | Undergraduate Researcher
Sep 2012 – May 2013 | Cambridge, MA
Created computational models in R with microarray gene expression data to investigate genes involved in brain aging, with **Dr. Leonard Guarente**.

WORK

MILLIMAN, INC. | Machine Learning Research Intern
Aug 2014 – Dec 2014 | Cambridge, MA
Non-parametric modeling and visualization with insurance claim data in MATLAB and Python, worked with MySQL databases.

LEAPYEAR INNOVATIONS | Part-time Software Engineer
July 2014 – Nov 2014 | Cambridge, MA
Implemented optimization, inference algorithms in Python for marketing applications.

PERSONAL PROJECTS

MIT ASSISTIVE TECH CLUB, MIT PUBLIC SERVICE CENTER | Hackathon Winner, PSC LEAP Grant Awardee
Feb 2015 – Present | Cambridge, MA
Designed and prototyped a sip-puff joystick mouse for people without use of their hands.

MIT RLE, MIT PUBLIC SERVICE CENTER | PSC Fellow
Oct 2011 – Aug 2012, Jan 2014 | Cambridge, MA & Arusha, Tanzania
Built & deployed a system for low-cost rural Internet access at a secondary school in TZ.

AWARDS

2015 MIT Assistive Technology Hackathon, 1st place
2014 IEEE ComSoc Student Competition, 2nd place
2014 Siebel Scholarship for academic excellence and leadership
2012 MIT Public Service Center and Baker Memorial Public Service Fellowships