

Nancy Ouyang
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EDUCATION

Harvard University

PhD candidate in Computer Science

Aug 2017 – now

Massachusetts Institute of Technology

Bachelor of Science degree in Mechanical Engineering

June 2013

RESEARCH EXPERIENCE

Harvard Statistics Department – *Graduate student (under Lucas Janson)*

Sept 2017 – now

Wrote simulation framework in Julia to assess feasibility and optimality of motion planning algorithms.

MIT Biomimetic Robotics Lab – *Research Assistant (under Sangbae Kim)*

Feb – Jul 2017

Worked with senior graduate student Albert Wang, on safety metrics in motion planning for legged robots. Interfaced MATLAB dynamics simulation runs to PostgreSQL and ran database benchmarks.

INDUSTRY EXPERIENCE

VVV Academy – *Technical Instructor*

Jan 2016 – Dec 2016

Developed and taught robotics curriculum for K5 -12 students. Began writing up intro to robotics book.

Curoverse – *Researcher (under Alexander Wait Zaranek)*

Sep 2014 – Dec 2015

Created open source genomics web applications in Python, initiated customer research interviews, presented to Global Alliance for Genomics and Health, ran non-credit month-long genomics class.

MIT Office of Digital Learning – *Contractor (under Isaac Chuang)*

Jan – May 2014

With NarwhalEdu cofounder, took on contract work to investigate replacing the \$5k robots in MIT's introductory EECS class with \$200 robots that we prototyped.

NarwhalEdu – *Founder*

Jun 2013 – Sep 2014

Accepted to Global Founder's Skills Accelerator 2013. Designed drawing robot arm kit and complementary online curriculum as an introduction to engineering online class. Reached close to 100 students with over \$20k of sales (via Kickstarter) in our first year. See [Kickstarter](#) & [EdX](#).

PUBLICATIONS

Guthrie, S., et al. [Tiling the genome into consistently named subsequences enables precision medicine and machine learning with millions of complex individual data-sets](#). (2015). PeerJ PrePrints 3:e1426v1; doi.org/10.7287/peerj.preprints.1426v1

Novak, B., et al. [Genome Graphs](#). (2017). bioRxiv 101378; doi.org/10.1101/101378

TEACHING EXPERIENCE

MIT International Design Center – *Recitation Instructor (under Charles Guan)*

Jun – Jul 2013

Taught class where students spent six weeks designing, building, and racing their own electric go-kart.

LEADERSHIP

MIT Electronics Research Society – *President*

Feb 2012 – Feb 2013

Led a student-run machine shop / makerspace. Organized peer-to-peer workshops and student grants.