CURRICULUM VITAE
Mike H. Wu

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INTERESTS
Machine Learning, Genomics, Healthcare, Probabilistic Programming, Language

PROGRAMMING SKILLS
General: Python, R, VBA, MATLAB, Ruby, Lua, C, Clojure, Arduino
Web Programming: RoR, Node, Angular, Flask, HTML/CSS, Javascript, Latex
AI / ML: Autograd, Torch, Keras, Tensorflow, Numpy, Scikit-Learn

EDUCATION
Yale University: Computer Science BS
Undergraduate, 2016
Cum Laude
Distinction in the Major
Yale College Council Science and Engineering Subcommittee

University of Oxford: Computer Science
New College Visiting Student, 2015
Oxford Union Member
Oxford Computing Society
Oxford Engineering Society

RESEARCH EXPERIENCE

Doshi-Velez Lab
Harvard (Jun 15 to Present)
Healthcare Machine Learning

Wood Lab
Oxford (Jan 15 to Aug 16)
Probabilistic Programming

Cisewski Lab
Yale (Sept 15 to Sept 16)
Astrostatistics, Topology

Scazellati Lab
Yale (Jan 16 to May 16)
Robotics, Computer Vision

Morris/Trivedi Lab
UCSD (Sept 10 - Sept 12)
Computer Vision

TEACHING EXPERIENCE

Yale School of Management Teaching Assistant
Kyle Jensen; MGT 656 MGMT of Software Development
Net promotor score of 61; Held office hours & class hackathons, created ed-tech Node.js apps.

Yale College Teaching Assistant
Avi Silberschatz; CPSC 437/537 Operating System Concepts
Held office hours, designed homework and lecture slides.

COURSEWORK
Ordinary & Partial Differential Equations (**Ahn**)
Data Structures and Programming Techniques (**Eisenstat**)
Systems Programming and Computer Organization (**Eisenstat**)
Introduction to Databases (**Silberschatz**)
Numerical/Optimization Methods I (**Bennett**)
Cryptography and Computer Security (**Fischer**)
Intelligent Robotics (**Scazellati**)
Computational Vision and Biological Perception (**Zucker**)
Start-up Founder Studies (**Jensen**),
Deep Learning (**De Freitas**),
Advanced Data Structures and Algorithms (**Elkind**),
Computational Learning Theory (**Worrell**),
Organizational Behavior,
Game Theory (**Nalebuff**)

PUBLICATIONS

Wu, Mike, et al. "Topological Hypothesis Tests for the Large-Scale Structure of the Universe." Journal of Computational and Graphical Statistics (2016). [SUBMITTED]

Marzyeh Ghassemi, **Mike Wu**, et al. "Predicting intervention onset in the ICU with switching state space models." American Medical Informatics Association (2016). [SUBMITTED]

Wu, Mike, et al. "Understanding vasopressor intervention and weaning: Risk prediction in a public heterogeneous clinical time series database." Journal of the American Medical Informatics Association (2016): ocw138.

Wu, Mike, et al. "Spreadsheet Probabilistic Programming." arXiv preprint arXiv:1606.04216 (2016).

Krishnan, Madhu, **Mike Wu**, et al. "Autonomous Mapping and Navigation Through Utilization of Edge-Based Optical Flow and Time-to-Collision." Innovations and Advances in Computing, Informatics, Systems Sciences, Networking and Engineering. Springer International Publishing, 2015. 149-157.

Wu, Mike, and Madhu Krishnan. "Edge-based Crowd Detection from Single Image Datasets." International Journal of Computer Science Issues (IJCSI) 12.1 (2015): 18.

Wu, Mike. "Financial Market Prediction." arXiv preprint arXiv:1503.02328 (2015).

PROFESSIONAL EXPERIENCE

Invrea (Inverse Reasoning) http://invrea.com/
Co-Founder
Commericialized “Spreadsheet Probabilisitc Programming” with Yura Perov and Prof. Frank Wood into a native Excel & Google Sheets modeling tool (ongoing). Featured in *Talking Machines* podcast.

Ionis Pharmaceuticals
Machine Learning Intern
Built a supervised model to predict likelihoods of experiemental drug success based on local genomic features from ENCODE.

Aflume http://www.aflume.com/
Co-Founder
A crowdfunding platform to connect artists with their close fans. Built a music player, donation pipeline, and media platform. Worked with local artists in the bay area.

Microsoft
Student Partner
Organized social events and Microsoft hack sessions at Yale.

San Diego Supercomputer Center
Research Intern
Worked on GPU compabilitiy for a simulation engine and benchmarking for AMBER molecular dynamics.

WORKSHOPS

YHack http://www.yhack.org/
Co-Founder (2014 to 2016)
An international hackathon with 3000 applicants and 50 corporate sponsors each year. The goal is to encourage students to use their knowledge and build practical applications.

CodeBoola http://codeboola.yhack.org/
Co-Founder (2015, 2016)
A high school “learnathon” intended to teach high school students basic web programming. 300 annual participants.

Yale Technology Summit
Organizer (2015, 2016)
Helped Yale IT fundraise and plan logistics for this yearly technology conference in the business school.

PROJECT EXPERIENCE

Ada https://github.com/mhw32/Adaware (WIP)
A graph-based approach to extract semantically meaningful representation of the web. An NLP toolkit (similar to coreNLP) was developed from scratch using solely neural networks.

Penpal http://www.penpallabs.com (2014 to 2016)
A stabilizing writing utensil specially designed to improve the lives of those with Essential Tremor, Parkinson's Disease, or other motion disorders.

Rambrandt https://github.com/mhw32/RAMbrandt (2015)
Pixel-level generative model to create modern art pieces trained using Pollock and Legarde.

King George Mini Storage http://www.kinggeorgeministorage.com (2014)
Designed web page for New England storage company.

AWARDS AND HONORS

Research Awards
California Bill of Recognition for Science Achievement, Siemens Semifinalist, Intel ISEF Finalist (3rd place), ACM, US Air Force, Sigma Xi, SDSC & Human Factors Research Awards, Sigma Xi Member

Hackathon Awards
Dropbox API 1st place (2014), HackMIT Top 8 (2014), Featured TechCrunch Article (2013)

Conferences / Other
MIT SOLVE rapporteur (2015), XSEDE Presenter & Best Student Poster Award (2012-13), CISSE Presenter (2012), Qualcomm QLiving Education Scholarship (2013), Yale Technology Summit Speaker (2014), Intel Capital Showcase Presenter (2012)