

Yuxiang Yang

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Education

University of California, Berkeley

Aug.2014—May.2018

Bachelor of Science, Electric Engineering and Computer Science (with minor in Mathematics)

GPA: 4.00 / 4.00

EECS Major Citation: presented annually in recognition of outstanding undergraduate achievement

Relevant Coursework:

- EE120: Signals and Systems
- EE128: Feedback Control Systems
- EE106A: Introduction to Robotics
- EE127: Introduction to Convex Optimization
- EE192: Mechatronics Design Lab
- CS188: Introduction to Artificial Intelligence
- CS189: Introduction to Machine Learning
- CS280: Introduction to Computer Vision

Experience

Research

Google Brain Robotics (Google AI Residency)

Jul.2018 — present

- Work on robot locomotion using meta reinforcement learning
 - Apply Model Agnostic Meta Learning (MAML) to cross the sim-to-reality gap
 - Introduced No-Reward Meta Learning (NoRML), an improved version of MAML that does not require external reward for adaptation, and is more expressive at detecting dynamics changes
- Collaborator:* Ken Caluwaerts, Atil Iscen, Jie Tan, Chelsea Finn

Biomimetics Millisystems Lab

Jan.2017 — May.2018

- Research on the locomotion of OpenRoACH, an open-source dynamic-legged robot.
 - Improved original version line-following algorithm, Built a data pipeline that connects IMU reading and motor encoders to Robot Operating System (ROS).
 - Undergraduate thesis on effective turning of hexapedal robots using phase-locked gaits
- Advisor:* Prof. Ronald Fearing and Dr. Liyu Wang

Robot Learning Lab

Jan.2016 — Oct.2016

- Research in computer vision and 3D pose estimation in a Learning from Demonstration (LfD) project.
 - Constructed a convolutional neural network that estimates camera position from camera images.
- Advisor:* Prof. Pieter Abbeel

Video and Image Processing Lab

Sep.2015 — Jan.2016

- Research in the auto-calibration of cellphone magnetometer for indoor navigation.
 - Proposed a novel way of bias correction using motion sensor reading.
- Advisor:* Prof. Avidesh Zakhor

Teaching

Undergraduate Student Instructor

Aug.2016—May.2018

CS70: Discrete Math and Probability Theory

Fall 2016, Spring 2017, Fall 2017

CS170: Algorithms Spring 2018
 - Lead weekly discussion sections and office hours, prepare course materials and exam questions, hold review sessions for the class with 700+ students
 - Created discussion slides, extra notes, review worksheets and other materials that is available at <http://www.eecs70.org/resources/>

Industry

Microsoft, Software Engineer Intern May.2017—Aug.2017
 - Software performance analysis using machine learning in Office performance team.
 - Developed a machine learning model to detect boot time regression of MS Office Apps based on automation telemetry data, integrated with the official build pipeline

Google, Software Engineer Intern May.2016—Aug.2016
 - Worked with app ads team and constructed a machine learning pipeline for conversion estimation in mobile ads (a >\$1B/yr business)
 - Improved prediction error to state-of-the-art level using feature engineering and statistical analysis

Publications

Yuxiang Yang, Ken Caluwaerts, Atil Iscen, Jie Tan, Chelsea Finn “NoRML:No-Reward Meta Learning” in AAMAS 2019, *Currently under review*

Liyu Wang, **Yuxiang Yang**, Ronald S Fearing “OpenRoACH: A Durable Open-Source Hexapedal Platform with Onboard Robot Operating System (ROS),” in ICRA 2019, *Currently under review*

Honors & Awards

UC Berkeley EECS Major Citation May.2018
 presented annually in recognition of the most outstanding undergraduate achievement within the department

UC Berkeley Dean’s Honor List Aug.2014—May.2018
 Recognizes outstanding academic achievement each semester

Berkeley EECS Honor’s Student Jun.2017—May.2018
 Recognizes very talented undergraduate students and provides them with more flexibility on research

ACM-ICPC Contestant 2014, 2015
 Participated in Pacific Northwest regional final, ranked 4/45 (Division II) in 2014; 17/70 (Division I) in 2015

Skills Profile

Machine Learning and related
 Meta-learning, Reinforcement Learning, Tensorflow

Mechatronics:
 Circuit Prototyping, PCB manufacturing, soldering, laser-cut, 3D printing

Programming Language and Software Proficiency:
 Python, Java, C/C++, MatLab, Go, Javascript, Robot Operating System (ROS), L^AT_EX

Languages:
 Chinese (native), English (proficient)