ANNIE FENG

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EDUCATION

Massachusetts Institute of Technology *Sep 2019 - December 2024*
Master of Engineering in Electrical Engineering and Computer Science
Bachelor of Science in Electrical Engineering and Computer Science GPA: 5.0 / 5.0
AI Concentration Coursework: Deep Generative Models, Inference and Information, Planning Under Uncertainty, Computational Sensorimotor Learning, Advances in Computer Vision, Advanced NLP

EXPERIENCE

Graduate Student Researcher, MIT CSAIL *Sep 2023 - Current*
Master's thesis work with Learning and Intelligent Systems lab. Using generative models trained on internet-scale data to aid exploration in model-based reinforcement learning.

-Advised by Prof. Tomas Lozano-Perez.

AI Software Intern, DriveIX, NVIDIA *Jun 2024 - Sep 2024*
Working on training data pipelines and algorithms for in-car perception models. Contributions include new features: sensor movement detection, image noise detection, and image statistics analysis.

Graduate Teaching Assistant, MIT EECS *Sep 2023 - Dec 2023*
Teaching assistant for a class of 120 students: 6.4110 (AI Representation, Reasoning and Inference). Created HW assignments, held office hours and recitations, and graded work.

AI Software Intern, DriveIX, NVIDIA *Jun 2023 - Sep 2023*
Worked on C++ production code for camera calibration, and data pipeline for gaze vector prediction.

Undergraduate Student Researcher, MIT CSAIL *Jan 2023 - May 2023*
- I worked on a classifier model for electronics shipping documents in PyTorch, as part of the Clinical Decision-Making Group @ MIT.

- Advised by Dr. Amar Gupta.

Computer Vision Software Intern, DriveIX, NVIDIA *Jun 2022 - Sep 2022*
Worked on 3D Reconstruction and Region Mapping, and a laser robot's system software and communication protocol.

Student Robotics Engineer, Little Devices Lab @ MIT *May 2021 - Sep 2021*
I did full-stack development of a swarm robotics system, with C++ (microcontrollers), Python (server-

side using Django and ML with scikit-learn), CAD, soldering, and oscilloscope. I led bring-up of new features using a website to control action sequences.

- Advised by Jose Marquez-Gomez.

Undergraduate Student Researcher, Langer Lab @ MIT Koch Institute *Jan 2020 - Sep 2020*
2^{nd} Project: Vital signs monitoring on mobile robotics platform

I programmed the Boston Dynamics SPOT robot with ROS and worked on a computer vision algorithm that predicts heart rate and oxygen saturation. Resulted in publication.

- Advised by Dr. Henwei Huang and Claas Ehmke.

1^{st} Project: Cost-effectiveness Markov Cohort Model

I developed cost-effectiveness model of a new medical device, and shadowed in the Mass General gastroenterology department. Resulted in publication.

- Advised by Dr. Jacqueline Chu.

PUBLICATIONS

Mobile Robotic Platform for Contactless Vital Sign Monitoring
Henwei Huang, Jack Chen, PR Chai, Claas Ehmke, Philip Rupp, FZ Dadabhoy, **Annie Feng**, et. al.
In *Cyborg and Bionic Systems, 2022.*

Assessment of the Acceptability and Feasibility of Using Mobile Robotic Systems for Patient Evaluation
PR Chai, FZ Dadabhoy, HW Huang, JN Chu, **A Feng**, et. al.
In *JAMA Network Open, 2021.*

Personalized Radiation Attenuating Materials for Gastrointestinal Mucosal Protection
James D. Byrne, Cameron C. Young, Jacqueline N. Chu, Jennifer Pursley, Mu Xian Chen, Adam J. Wentworth, **Annie Feng**, et. al.
In *Advanced Science, 2021.*

ACTIVITIES

HKN (Eta Kappa Nu) Tutor, MIT *Spring 2022, Fall 2022*
Tutored MIT students in Design and Analysis of Algorithms (6.046) and Intro to Algorithms (6.006).

Lab Assistant for Machine Learning class (6.036), MIT *Fall 2022*

Grader for Algorithms and Data Structures (6.006), MIT *Fall 2021*

SKILLS

Programming Languages and Frameworks
Proficient in Python, Linux (5+ years)
Experienced in C++, Typescript, Pytorch, Django, SQL, React (2+ years)

Languages
English (native U.S. citizen, fluent)
Mandarin Chinese (limited)

AWARDS AND SCHOLARSHIPS

Tau Beta Pi Honor Society *2022*
Eta Kappa Nu Honor Society *2022*
Emerson/Harris Piano Scholarship , MIT *2019*