

# ANNIE FENG

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## EDUCATION

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**Massachusetts Institute of Technology** *Sep 2019 - December 2024*  
Master of Engineering in Electrical Engineering and Computer Science GPA: 4.6/5.0  
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

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**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<sup>nd</sup> 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<sup>st</sup> 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

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### **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

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**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

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### **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

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**Tau Beta Pi Honor Society**

*2022*

**Eta Kappa Nu Honor Society**

*2022*

**Emerson/Harris Piano Scholarship** , MIT

*2019*