Helen Yang

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EDUCATION

Massachusetts Institute of Technology   Cambridge, MA

*BS Candidate in Computer Science and Engineering - **GPA: 5.0/5.0***   *Expected 2023*

- **Relevant Coursework**: Elements of Software Construction (6.031)*, Advanced Natural Language Processing (6.806)*, Design and Analysis of Algorithms (6.046), Machine Learning (6.036), Intro to Algorithms (6.006), Web Development (6.148), Discrete Math (6.042), Fundamentals of Programming (6.009); * = Fall 2021
- **Teaching/Lab Assistant/Grader**: 6.036 (Machine Learning), 6.006 (Introduction to Algorithms)
- **Leadership/Extracurriculars:** TechX/HackMIT/xFair (Executive Board, xFair Co-director), Society of Women Engineers (Outreach Chair, Head Teacher), Pi Beta Phi (Committee Member), MIT Chamber Music Society

TECHNICAL SKILLS

Python, Java, C++, HTML/CSS, JavaScript (React, Node.js), TypeScript, REST, Machine Learning (PyTorch, Keras, Tensorflow, SpaCy, nltk, pandas), MongoDB, SQL, Matlab, Django, Docker, Flask, Kubernetes, GCP, AWS, Linux, Unix

EXPERIENCE

Discovery Fellow   Aug 2021

The D.E. Shaw Group   *New York City, NY*

- One of 40 students selected globally for academic talent and intellectual curiosity to participate in educational and training sessions in software and finance. Studying investment strategies and technology with firm analysts.

Machine Learning Engineer Intern   June 2021 – Aug 2021

U.S. Department of Defense   *Wright-Patterson Air Force Base*

- Developed software for Bayesian goal inference technology and coded NLP models to categorize speech for predicting agent actions. Integrated computer vision and object detection/video-feed analysis into speech models.
- Achieved over 200% speed-up in model run time. Used Python, Docker, Tensorflow, Transformers, nltk, Colab.

InStep Software Engineering Intern   May 2021 – July 2021

Infosys   *Quincy, MA*

- Developed application for automated text extraction and summarization from documents using several transformer and recurrent neural network-based NLP models. Models integrated into hiring pipeline for 1000+ candidates.
- Collaborated and reviewed code in an Agile team setting. Used Python, Tensorflow, Keras, Transformers, Azure.

Software Engineering Intern   Jan 2021 – May 2021

Colgate-Palmolive   *Piscataway, NJ*

- Developed a full-stack web application for 300+ computational chemists to record, export, and analyze their runs. Created an API for machine learning models to be integrated into the predictive chemistry website.
- Used SDLC, Kubernetes, Docker, GCP, Python, JavaScript, React, PostgreSQL, Node.js, Django, and REST API.

Machine Learning Research Intern   Aug 2020 – May 2021

Massachusetts Institute of Technology   *Cambridge, MA*

- Developed a highly-accurate deep learning model for processing images and returning predictions of individual neuron activity in the mammalian brain. Developed another deep neural network to generate synthetic images that maximally excite select neurons. Model achieved over 95-percent accuracy. Used Python, Matlab, Unix.

PERSONAL PROJECTS

helen.me | https://hyang5916.github.io/helen.me
- Built a responsive webpage to view all personal projects. Used React, Node.js, HTML/CSS, jQuery, Javascript.

icecreme.brulee | https://icecreme-brulee.herokuapp.com/
- Coded a full-stack gaming website based on a popular party game in TypeScript, React, Node.js, MongoDB.

AWARDS

MIT Emerson Scholar; USABO National Finalist (6th highest score out of 10,000 in the USA); Technology Student Association State Winner & Nationals; Science Olympiad California State Gold Medals, AP Scholar with Distinction; Fencing National Championships; National Orchestra Director's Award; Scholastic Art and Writing Gold Key