Julie Vaughn

Data Science & Engineering

Data for a healthier and more equitable world.

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Education

Massachusetts Institute of Technology — *Cambridge, MA*

Master of Engineering in Computer Science (AI Concentration); GPA: 5.0/5.0 — *August 2020 - September 2021*

B.S. in Computer Science and Electrical Engineering, Minor in Biomedical Engineering; GPA: 4.6/5.0 — *September 2016 - May 2020*

Coursework Highlights: Machine Learning for Healthcare, Algorithms for Inference, Adv. Natural Language Processing, Computer Vision, Structured Models for AI, Statistics, Probability, Physiology, Healthcare Ventures, Neurological Disease, Computational Cognitive Science, Public Health
Activities: Teaching CS and design thinking locally and in Mexico and India, NEET Living Machines, health advocacy, Sandbox Innovation fellow

Skills

Python Pandas, Numpy, SKLearn, Seaborn, PyTorch, Keras, Jupyter, Machine Learning, NLP, Computer Vision

General SQL, Linux, Matlab, Java, C, Microsoft Office, Arduino, AWS, Docker, Data Mining, Research, Teaching, Writing

Experience

Cellular Longevity, Inc. (dba Loyal) — *San Francisco, CA*

Data Scientist — *September 2021 - Present*

- Supporting clinical trial planning and a variety of cross-functional projects to bring the first-ever longevity drugs to market. Studying aging in dogs.

MIT EECS — *Cambridge, MA*

TA and Research Assistant — *August 2020 - August 2021*

- TA for Intro Machine Learning (6.036) at MIT, received high evaluation scores (6.6/7) both semesters
- Master's student studying clinical pain management using NLP applied to EHR data in the Szolovits MEDG group

Centaur Labs (YC Startup) — *Boston, MA*

Data Science Intern — *May 2019 - August 2019*

- Developed algorithms to combine human wisdom of the crowd and AI in image-based medical diagnostics. Created reports with insights into user behaviors through data analysis in Python. Started the company blog.

Philips Research North America — *Cambridge, MA*

Clinical Analytics Research Intern — *May 2018 - August 2018*

- Developed machine vision algorithms with 3D camera data to help monitor paralyzed patients. Made a prototype of a monitoring application in Matlab. Work is patent-pending and was presented at the IEEE EMBC 2019 conference.

Projects

Tech Policy for Bias in Medical AI — *Boston, MA*

Student Researcher: Reducing Bias in Medical AI — *September 2019 - December 2020*

- Researched the effect of bias in diagnostic AI systems. Drafted a set of policy recommendations to the NIH and FDA
- Presented at Women in Data Science @ Silicon Valley, ReWork AI for Healthcare Conference, and ACM CHIL 2020 (Spotlight Presentation)

Hand Rehabilitation Therapy System — *New Delhi, India*

MIT Sandbox Innovation 2.5K Grant Recipient — *July 2017 - June 2018*

- Co-designed a therapy service to help stroke victims regain mobility in their hands. Developed an Arduino-based glove capable of tracking common therapy exercises. Learned about market research, entrepreneurship, and healthcare in India.