Sarah Lau Hale

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SKILLS

Programming Languages

Scala • Rust • C++ • Java • Python • bash • SQL • TeX • MATLAB • Mathematica • JavaScript • HTML • CSS

Software Tools

GitHub • git • Linux • shell • Apache Airflow • Apache Spark • Google Cloud Platform • Google Compute Engine • TensorFlow • Kubernetes • Grafana • Terraform • Docker • Jira

Hardware

Soldering • Breadboarding • Laboratory training (e.g. optics alignment, fume hood usage) • Telescope operation • Remote hardware operation • 3D printing • Hand press printing • Fiber arts (knitting, sewing, etc)

Soft Skills

Troubleshooting • Independent work • Peer review • Visual and written communication

EDUCATION

BS in Physics & Computers @ Harvey Mudd College — May 2018

High Distinction • Departmental Honors

EXPERIENCE

Senior Machine Learning Engineer @ Etsy — Apr 2021 – Jan 2024

Formative member of the Feature System team within the Machine Learning Enablement initiative

- Implemented the initial code for a cutting edge framework to store ML training data avoiding data leakage problems
- Critical to enabling online inference for TensorFlow ML models
- Championed modern documentation practices for the team
- Domain expert on the team's legacy code

Machine Learning Engineer @ Etsy — Jul 2019 – Mar 2021

Member of the Advanced ML Systems group within the Data Science team

- Independently lead MVPs for various new product initiatives including: joint optimization for localized search, a representative data sampling tool, a faster parallelized model evaluation tool
- Aided in development of the company's standardized machine learning feature storage and serving scheme. Co-authored corresponding paper and patent filing

Dean's Fellow @ Columbia University — Aug 2018 - May 2019

Researched applying deep learning to measuring cosmological parameters in simulated weak lensing maps

Software Engineer Intern @ Google — May 2018 – Aug 2018

Worked in the Quality team of Dynamic Search Ads to improve the precision and recall of the query/advertisement matching model

Undergraduate Research Fellow @ Caltech LIGO — Jun 2017 – May 2018

Researched applying deep learning to classify gravitational wave data

- Created a prototype which could distinguish simulated gravitational waves from LIGO-typical transient noise with >99% accuracy

Engineering Practicum Intern @ Google — May 2016 – Aug 2016

Facilitated addition of new sources of data to local search on Google Maps by creating an internal pipeline to transform open government data for use in Maps

Software Engineer Intern @ NASA Ames — Jun 2015 – Aug 2015

Helped produce Open MCT Web, an open source web-based telemetry visualizer intended for mission control usage