

Vaed Prasad

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EDUCATION

Cornell University

M.ENG. COMPUTER SCIENCE

May 2021 | Ithaca, NY

Specialization in Machine Learning

GPA: 3.91/4.00

Cornell University

B.S. COMPUTER SCIENCE

Dec 2020 | Ithaca, NY | Dean's List

Minor in Networks, Crowds, & Markets

Minor in Law & Society

Horace Mann School

Jun 2017 | Bronx, NY

President, Mathematics Team

Honors in Computer Science

Honors in Mathematics

SKILLS

Java • Python • Swift • SQL

Objective-C • OCaml • Julia

JavaScript • HTML/CSS • Coq

HACKATHONS

PennApps • HackMIT • BigRed Hacks

StartupBus • Endevvr • HackBCA

TigerHacks • HackTrin • HackMann

COMPETITIONS

Google Code Jam

USA Computing Olympiad

American Computer Science League

COURSEWORK

Algorithms

Deep Learning

Computer Vision

Machine Learning

Learning with Big Data

Natural Language Processing

Programming Languages and Logics

Artificial Intelligence

Database Systems

Data Structures

Functional Programming

Object Oriented Programming

Discrete Structures

Operating Systems

Embedded Systems

Digital Logic & Computer Org.

UNIX Tools & Scripting

HONORS

Congressional Award Gold Medal

Eagle Scout with Gold Palm

Kiefer Scholarship Recipient

EXPERIENCE

PathAI | MACHINE LEARNING PLATFORM ENGINEER CO-OP

June 2021 – Present | Clinical Pathology Research Team | Boston, MA

- Led development of pathology frame-selection algorithm leveraging hierarchical clustering to optimize ground-truth annotation diversity for active learning (**Python**)
- Implemented Mask-RCNN models for nuclei cell segmentation (**Python, YAML**)

Amazon Lab126 | SOFTWARE DEVELOPMENT ENGINEER INTERN

May 2020 – Aug 2020 | Alexa AI Conversations Team | Sunnyvale, CA

- Spearheaded overhaul of Alexa's Dialog Simulator to support expanding Alexa's deep conversational model for future third-party extensions (**Python, Java**)
- Implemented Golden Goal Sampler that leverages word embeddings to build a service that converts a handful of golden dialogs into a myriad of synthetic annotated conversations for supervised training (**Python, Java**)

Audible | SOFTWARE DEVELOPMENT ENGINEER INTERN

Jun 2019 – Aug 2019 | Core iOS Team | Newark, NJ

- Developed Wishlist module, presenting user's product wishlist and enabling product queuing functionality: **deployed v3.10 (Swift: Audible API)**
- Built Listening Time module, calculating user's daily, weekly, and monthly audio-book listening time: **deployed v3.11 (Objective-C, Swift: Audible API, Core Data)**

Nuance Communications | SPEECH & DATA SCIENCE INTERN

May 2018 – Jun 2018 | Acquired by Microsoft | Mahwah, NJ

- Implemented scripts to parse 1.4 million call logs, fine-tune hyperparameters, and optimize transfer configuration rules in order to reduce misroutes in caller-agent matching (**Python: pytorch, pandas, numpy**)

Jul 2017 – Aug 2017 | Mahwah, NJ

- Developed dynamic grammars to enable IVR technologies for phone systems (**XML**)
- Enhanced caller's voice recognition performance with KPIs and task analysis

RESEARCH

Cornell University | MACHINE LEARNING RESEARCHER

Aug 2017 – Present | Ithaca, NY

- Performed dimensionality reduction and implemented unsupervised clustering algorithms to intelligently group livestream chat-rooms under Professor Susan Fussell

PROJECTS

Virtual Staining of Protein Distributions | DEEP LEARNING ENGINEER

Jan 2021 – May 2021 | Paper: [Image Translation with IMC Labels](#)

- Developed neural networks using semantic segmentation and paired image translation to reveal protein surface markers (**Python: pytorch, keras, pix2pix, Unet**)
- Partnered with Institute for Computational Biomedicine of Weill Cornell Medical College for proprietary lung pathology data obtained via imaging mass cytometry

U.S. Presidential Election Predictor | MACHINE LEARNING ENGINEER

Aug 2020 – Dec 2020 | Paper + GitHub: [2020 Election Analysis](#)

- Implemented KNN, SVM, and neural network models with various demographic, socioeconomic, and electoral features to predict vote share for counties in 12 key swing states for the 2020 U.S. presidential election (**Python: sklearn, numpy**)

FELLOWSHIPS

8VC | FELLOW

June 2021 – Present | San Francisco, CA

- Mentored by notable entrepreneurs while engineering for a portfolio company