

Kavel Rao

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GitHub: github.com/kavelrao

Education

University of Washington Allen School of Computer Science, GPA: 3.97

Expected June 2023

- B.S. Computer Science
- Washington NASA Space Grant Scholar

Relevant Coursework:

Database Systems, Foundations of Computing, Data Structures and Parallelism, Wireless Communication Programming, Software Design & Implementation (Planned), Machine Learning (Planned)

Newport High School, GPA: 4.00

June 2020

Experience

Software Engineer Intern at Conversica

Jun 2021 - Present

- Building production platforms to improve conversational AI language comprehension and generation
- Reduced spending by \$100,000 per year by implementing automated Kubernetes resource audit and cleanup
- Prototyped context-aware natural language generation system using knowledge graphs
- Collaborating with hybrid remote team using Scrum practices with Jira and Slack

Technologies Used: Python, Django, AWS, Docker, Kubernetes, Tensorflow, PyTorch, Bash, GitLab CI, Terraform

Student Software Engineer at Husky Satellite Lab

Oct 2020 - Dec 2021

- Programmed embedded satellite systems to enable low earth orbit radar experiments
- Built prototype satellite orientation control algorithm to provide directional radar adjustment
- Wrote microcontroller drivers to interface with positional sensors and motors

Technologies Used: C, C++, MSP 430 microcontroller

Programming Teacher at Code Wizards Academy

Oct 2019 - Mar 2020

- Designed curriculum and taught semi-private coding lessons to elementary school students

President & Senior Mentor at Newport High School Rocketry Club

Sep 2016 - Jun 2020

- Established repeatable engineering practices and fostered culture of peer-to-peer learning
- Recruited at events and on social media to increase membership from 25 to 50 in 2 years
- Drove design choices and team culture resulting in national placement 2 years in a row
- Spearheaded corporate engagement, resulting in recurring sponsorships of up to \$3000 per year

Technical Qualifications

Languages (Proficient): Python, Java, C, SQL

Languages (Familiar): C++, Bash, JavaScript, HTML, CSS

Tools/Libraries: Docker, Kubernetes, Django, Git, GitLab CI/CD, Terraform, Linux/UNIX, LaTeX

AWS: Sagemaker, EC2, DynamoDB, S3, Redshift

Projects

Captioned FM Radio - Python Application ([Code](#), [Writeup](#))

- Built a streaming FM radio player using signal processing with machine learning speech-to-text captions

Technologies Used: Python, NumPy, SciPy, PyTorch, Software Defined Radio

Mutually - Hackathon Project ([Code](#), [Devpost](#), [Video](#))

- Prototyped a democratic mutual aid platform to contribute to and receive financial aid directly from the community
- Hackathon Finalist in the Downtown category

Technologies Used: Python, JavaScript, Django, ReactJS

Design and Data Presentation - The American Rocketry Competition ([Slides](#), [Video](#))

- Led team through data-driven design and presentation of results in virtual conference
- First Place in The American Rocketry Competition Presentation Contest

RecordBook - Web Application ([Code](#))

- Created a web app to help rocketry teams stay organized, collaborate, and analyze their data

Technologies Used: Python, JavaScript, Django, HTML, CSS