Raghavendra Raikar

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EDUCATION

University of California, Santa Cruz Expected Graduation: June 2025

Bachelor of Science in Computer Science

Relevant Coursework: Data Structures/Algorithms, OOP, Software Engineering, Deep Learning, ML, OS, NLP

SKILLS

Languages: Python, C, C++, Java, JavaScript, SQL, Flutter, Swift, Flask, TypeScript

Tools: AWS, React, Node.js, Git, PostgreSQL, Angular, Firebase, Springboot, GDAL, QGIS, JupyterNotebook, NLTK, Pandas, numpy, scikit-learn, Tensorflow, Matlab, Streamlit, Keras, PyTorch, spaCy, BERT, GPT-4, Hugging Face

Certifications: Oracle Certified Associate Java SE 8 Programmer, AWS Certified Cloud Practitioner

EXPERIENCE

NLP Researcher **Santa Cruz, CA**

Tech4Good ***January 2023 - Present***

- Conducted NLP research under Professor David Lee for Dynamic Surveys, enabling real-time clustering and ranking.
- Reduced processing time by 25% using GPT-4, hierarchical clustering, multi-topic classification, and adaptive analysis.
- Implemented dynamic GPT-4-generated follow-up questions for real-time qualitative insights in survey responses.
- Co-Authored paper on LLM-based clustering accuracy, and submitted findings to GenAICHI 2024.
- Launched and tested Dynamic Surveys with lab members and professors, enhancing survey insights.

Software Engineering Intern **Mountain View, CA**

NASA ***June 2023 - May 2024***

- Built 10+ new features to CMS Celestial Mapping System (CMS), a software platform simulating the moon in 3D.
- Integrated latest version of GDAL (Geospatial Library), boosting image projection accuracy by 30%.
- Added vector features to CMS and updated the server, enhancing crater analysis and mission planning by 40%.
- Developed data pipeline and algorithms for HORUS(deep learning tool) imagery, enhancing lunar crater clarity by 25%.
- Presented CMS at the NASA Better Together 2023 conference, and filmed a demo, boosting engagement by 20%.

Software Engineering Intern **San Diego, CA**

Kitu Systems ***March 2023 - June 2023***

- Built Python program using regex, streamlining client-side requirement extraction for Kitu-Inverter-Client by 70%.
- Cataloged server and client-side requirements, reducing development time by 35% and enhancing team accessibility.
- Conducted TPM testing on the OnLogic Board, achieving a 95% success rate in secure key storage and file decryption.

PROJECTS

PantryPal ***(July 2023 - August 2023, ~70 hours)*** GitHub

Streamlit | Flask | Pandas | NLTK | SKLearn | BeautifulSoup

- Engineered an AI model using Streamlit, Flask, Pandas, NLTK, and SKLearn to recommend recipes based on inputted ingredients, creating a user-friendly interface and enhancing user experience.

Mind-Palace ***(August 2022 - September 2022, ~80 hours)*** GitHub

React | Firebase | JavaScript | HTML/CSS | Google Maps API | Whereby API | Twilio API

- Implemented a customer service platform using React, Firebase, and Twilio API, featuring user authentication, real-time messaging, and high-definition video calls, resulting in a 42% improvement in customer retention.

Wasteless | CruzHacks 2022 ***(Jan 2022, ~48 hours)*** GitHub Devpost

1st Place Overall | Best Use of Google Cloud | Best Golden State Hack

Firebase | Firebase Cloud Messaging | Google Maps API | Flutter | Google Cloud

- Developed a food waste app using Firebase, Google Maps API, and Flutter, allowing users to find and collect excess food from dining halls and restaurants, reducing food waste costs by an estimated $162 billion annually.