Rian Puri

https://github.com/rpuri4   rianpuri01@gmail.com
https://linkedin.com/in/rianpuri   650-229-9266

EDUCATION

University of California, Berkeley   **Berkeley, CA**
Electrical Engineering and Computer Science, B.S.   *Aug 2022 - May 2026*

QUALIFICATIONS   [**GPA: 3.6**]

Skills: Web Development, Databases, Machine Learning, NLP, Robotics, Computer Architecture, Signal Processing
Languages: Java, Python, C, C++, JavaScript, MATLAB, R, SQL, RISC-V, VBA, HTML/CSS
Tools: Docker, Flask, React, Nodejs, Git, SpaCy, Jupyter, Unix/Linux, Valgrind, Django, PyTorch, Arduino, NumPy

PROFESSIONAL EXPERIENCE

RecVue   **Palo Alto, CA**
Software Engineer Intern   *June - Aug 2024*

- Collaborated on developing an AI-powered assistant leveraging SpaCy NER to convert natural language queries into SQL commands, improving query processing efficiency by 30%.
- Led engineering efforts to deploy the NLP model, utilizing Docker for containerization and Flask for RESTful API service creation. Implemented a system to interface with Oracle database, executing dynamically generated SQL commands for efficient customer data retrieval.
- Initiated development of a natural language generation system using large language models and Named Entity Recognition to translate database responses into human-readable format, enhancing customer query comprehension.

KEY INVOLVEMENTS

Research & Development | *ACE Lab, UC Berkeley*   *January 2025*

- Developing AutoRemind, a micro-service that integrates with Learning Management Systems to deliver personalized reminders via preferred communication platforms. Utilizing Python, Flask, and API integrations for real-time data extraction on student progress and assignment status.
- Implementing scalable backend services and maintaining a centralized repository of deadlines and resources using SQLite. Ensuring streamlined access for students to track tasks efficiently and improve academic performance.
- Aiming to enhance course engagement and reduce instructors' administrative burdens by creating a versatile tool applicable across various disciplines.

FullStack Development | *Web Development at Berkeley*   *April 2024*

- Audi-Friends: Led front-end development and contributed to back-end functionality using Django for a social audiobook discovery platform. Integrated the Spotify API for seamless book searches and implemented real-time updates for user-generated reviews and recommendations.
- Noteworthy: Designed and developed a website for the on-campus a cappella group using JavaScript, HTML, and CSS, boosting the group's online presence and improving user engagement.

PROJECTS

Handwritten Digit Classifier   *October 2024*

- Developed RISC-V assembly code to implement handwritten digit classification using ReLU activation in a machine learning model.
- Designed and implemented a simple Artificial Neural Network (ANN) as part of the classification process, enhancing the accuracy and effectiveness of the digit recognition system.

JAVA Game Engine   *November 2023*

- Designed and developed a 2D interactive, tile-based exploration game engine using Java StdDraw and TileSet libraries.
- Implemented procedural generation techniques with seed-based algorithms to create diverse and randomly generated worlds with strategically placed keys and locks
- Created a robust Save/Load feature for an immersive user experience

S1XT33N   *October 2023*

- Developed a voice-controlled robotic car using Arduino (C++), integrating motor control, encoder, and microphone circuits to enable motion and voice command recognition.
- Designed and implemented key circuit components, including motor control using PWM, encoder circuits for velocity measurement, a voltage regulator for power management, and a low-pass filter for voice frequency isolation.
- Applied PCA for dimensionality reduction and classification of voice commands, enabling precise, real-time responses; combined open and closed-loop feedback for motion control, ensuring stability and accuracy.