Aaryan Patel

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EDUCATION

University of Wisconsin-Madison   Madison, Wisconsin
B.S. Computer Science and Data Science — Minors in Entrepreneurship and Game Design   *Expected May 2027*
Relevant Coursework: Data Structures, Algorithms, Object-Oriented Programming, Machine Learning for Engineering Research, Building User Interfaces, Computer Engineering, Geographic Information Systems, Linux and C Programming

SKILLS

Languages: Java, Python, R, JavaScript, TypeScript, HTML, CSS, Bash, SQL
Tools: React, AWS (Lambda, S3, DynamoDB, Kendra, Bedrock), Git, Terraform, Pandas, Matplotlib, Django, Jira
Certifications: Oracle Cloud Infrastructure Foundations Associate, Docker Foundations Professional Certificate

EXPERIENCE

Undergraduate Teaching Assistant - Building User Interfaces   September 2025 - Present
University of Wisconsin-Madison   *Madison, WI*
- Mentored CS571 students by resolving complex conceptual and technical challenges in weekly projects using **React** or **React Native**, while also providing guidance on **JavaScript**, **HTML**, **Bootstrap**, and UI/UX principles

Software Engineer Intern   May 2025 – August 2025
State Farm   *Bloomington, IL*
- Architected an internal tool featuring an embedded AI chatbot with a user-friendly **React** interface, utilizing **Terraform** for scalable infrastructure
- Engineered and optimized efficient **Python**-based **REST** APIs within the **AWS** ecosystem, delivering solutions following **Agile** methodologies
- Accelerated workflow by implementing a **CI/CD** pipeline, enforcing code quality through high-coverage unit testing with **Jest** and **Pytest**
- Reduced redundant API calls across application by **95%**, boosting performance and decreasing operational costs

Research Computing Facilitator Assistant   July 2024 – Present
University of Wisconsin-Madison Center of High Throughput Computing   *Madison, WI*
- Streamlined data management for research computing by writing scripts that automate data collection and report generation using **Python**, **Pandas**, and **Bash**
- Generated insightful reports and tables from key metrics using **R** and **Matplotlib**, facilitating analysis of high throughput computing usage
- Refactored existing data collection and report generation processes, optimizing workflow efficiency by **20%**

Computer Hardware Engineer   May 2024 – August 2024
NASA   *Remote*
- Spearheaded the design, selection, and integration of the Command and Data Handling (CDH) subsystem of a conceptual lunar rover mission in a student-led team of **10+** students

PROJECTS

FragranceAI
- Designed a robust data pipeline for **50,000+** fragrance entries, leveraging advanced text feature engineering and efficient batch processing of embeddings to build a high-performance **ChromaDB** vector store for semantic search
- Developed a scalable microservice architecture for AI powered APIs using **FastAPI**, incorporating **Retrieval-Augmented Generation**

Datamatch
- Attracted over **32,500+** annual users by significantly boosting user engagement through a comprehensive website redesign and requested feature implementation using **React**, **HTML**, **CSS**, and **Figma**

LEADERSHIP

Chief Code Executive   May 2024 – Present
Datamatch Club   *Madison, WI*
- Orchestrated a coding boot camp, educating **10+** students on **React**, **Firebase**, **HTML**, and **CSS** fundamentals