

VARUN KANDULA

+1 (732) 789-7452 | varun.kandula@berkeley.edu | Berkeley, CA, USA | [in/varunkandula/](https://www.linkedin.com/in/varunkandula/)

EDUCATION

University of California, Berkeley | Berkeley, CA

December 2024

B.A. in Computer Science, Data Science, Certificate in Entrepreneurship and Technology

GPA: 3.7

Relevant Coursework: Data Structures, Computer Architecture, Operating Systems, Artificial Intelligence (Fine-Tuning), Machine Learning, Deep Neural Networks (Transformers), LLM Agents, Data Engineering, Product Management

RELEVANT EXPERIENCE

MongoDB

May 2024 – August 2024

Software Engineering Intern

New York, NY

- Engineered a real-time analytics dashboard using Flask and Python, incorporating 10+ developer workflow metrics; improved engineering visibility by 5x and streamlined prioritization of Q3/Q4 product features.
- Developed and integrated PagerDuty and Evergreen API services into an in-house Flask (Python) application
- Restructured the existing ETL pipeline multithreading techniques that cut data processing time by 30%
- Facilitated 12 stakeholder meetings across engineering, product, and design to align on Q3&Q4 workstream goals

Ford Motor Company

May 2023 – August 2023

Software Engineering Intern

Dearborn, MI

- Designed a 3-axis gantry arm, enhancing assembly operations by ~65%, improving manufacturing efficiency
- Eliminated the manual sorting process by building a 2D packing algorithm with the maximal rectangles heuristic
- Reduced overall packing, sorting, and delivery times from kitting cell to operator by ~75% to maximize internal supply chain operations for faster car assembly process, quicker response times, and rapid movement of parts
- Ensured alignment across 4 cross-functional teams by facilitating technical discussions and development sessions
- Delivered a 30+ slide presentation and recommendation to senior leadership to advance ADAS production

Cruuz

May 2022 – August 2022

Software Engineering Intern

Los Angeles, CA

- Defined 20+ user stories and collaborated with design teams to enhance product functionality and user experience
- Increased website session length by 30% by co-leading development, staging, and production of front-end design
- Integrated Google Reserve booking platform using RESTful APIs, increasing order processing efficiency by 25%
- Optimized data retrieval processes, reducing retrieval times by 15% through efficient workflow of 32+ API calls

PROJECTS

AIPath – Next.js, React.js, Python, Supabase, Selenium

October 2024

- Used a Vision-Language Model to analyze workflows, generating reproducible action plans with 90% accuracy
- Built a web agent to execute workflows using learned plans, improving with intelligent backtracking by 25%.
- Leveraged a self-learning Planning Agent with Chain-of-Thought reasoning and RLHF to efficiently plan and execute traces by dynamically generating and executing Selenium code through seamless browser integration.

CalRAG – Python (FastAPI), LangChain, Pinecone, Airflow

November 2024

- Built a Retrieval-Augmented Generation (RAG) chatbot to provide insights into class requirements for students.
- Customized embeddings for unstructured data using text-embedding-3-small optimizing search relevance by 20%.
- Designed pipeline for semantic search, achieved sub-50ms query latency across a 10,000+ document corpus.

Camera for Autonomous Fall Detection – Product Founder (Patent Pending)

March 2022 – Present

- Designed and developed a cost-effective, vision-based device to autonomously detect falls in older adults, resulting in a 20% reduction in response times for fall-related incidents during research and development
- Conducting user testing in 25 households and 2 nursing homes, which led to a 15% increase in detection accuracy

LEADERSHIP

NextGen Consulting – President

May 2023 – December 2023

- Led operations of a consulting organization of 50+ members, comprising 8 executives, 5 committees, 10 project managers, and 20 business analysts throughout the successful execution of 5 concurrent, 12-week long projects
- Raised \$70,000+ in donations across 9 clients to improve club resources and professional development tools
- Clients Sourced: NVIDIA, Abbott Laboratories, Ralph Lauren, Palantir, Remote (Series C – \$3B+ Valuation)

ADDITIONAL INFORMATION

Technical: Python, Java, JavaScript (React, Express), RAG, (No)SQL, Postgres, MongoDB, Spark, AWS, Kubernetes

Interests: Squash, Boxing, Golf, Watch Collecting, Photography, Carpentry, Indian Classical Music (Tabla), Poker