Akash Chavan

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Education

California State University, Los Angeles — Los Angeles, CA
Master of Science in Computer Science — *Aug. 2022 – May 2024*

Dr. Babasaheb Ambedkar Marathwada University — Aurangabad, MH
Bachelors of Engineering in Computer Science — *July. 2012 – June 2016*

Experience

Full Stack Developer — July 2024 – Present
Better Angels — *Los Angeles, CA*

- Worked on improving the backend services and APIs using Django, optimizing database queries and architecture while supporting frontend functionalities and integrating with React
- Contributed to AWS environment management and CI/CD pipeline optimization, enhancing resource deployment efficiency and streamlining development processes.
- Implemented comprehensive testing strategies, including component, unit, and ent-to-end tests, ensuring high-quality code and seamless functionality across the full stack.

Senior Software Engineer — Feb. 2019 – May 2022
FOSSEE, IIT Bombay — *Mumbai, MH*

- Worked on the implementation of an e-learning platform using Python, Django, Vue.js and AWS, implementing features such as real-time monitoring, offline learning, and a discussion forum while optimizing performance through advanced query techniques.
- Contributed to robust backend systems including RESTful APIs, a real-time message/feedback system using Django Channels, and an efficient notification system leveraging Celery and Redis, enhancing user engagement and support communication.
- Implemented timetabling solutions for Indian Railways using Python, PySpark/Pandas, NumPy, Java, and Bash, significantly reducing scheduling errors and improving operational efficiency across the network.
- Developed automation scripts and data workflows to streamline processes, resulting in reduced processing times and increased team productivity in railway operation context.

Software Engineer — Oct 2017 – Feb 2019
Virtual Labs, IIT Bombay — *Mumbai, MH*

- Architected and developed a web application for remote access to SBHS, implementing a load-sharing master-slave architecture using Raspberry Pi's and a lightweight Flask server to optimize communication between devices and the central server.
- Implemented features including a Moderator interface for remote control, real-time health monitoring of SBHS hardware, and automated power management, significantly enhancing system reliability and operational efficiency.
- Designed and integrated user-centric functionalities such as real-time data visualization using Chart.js and a streamlined slot booking interface, improving accessibility and user experience for SBHS device utilization.

Projects

NL2SQL | *Python, PyTorch, Azure, AWS, OpenAI*

- Developed inference endpoints for SQL generation from natural language using Azure, AWS Bedrock, and an open-source tool, adapting prompts from a University of Ohio paper to work with OpenAI, Azure and Meta models.
- Implemented cloud solutions and open-source deployments to enhance model accessibility and functionality.

Technical Skills

Languages: Python, Java, C/C++, SQL (Postgres), JavaScript, HTML/CSS
Frameworks: React, Vue, Node.js, Django, Flask, FastAPI
Developer Tools: Git, Docker, TravisCI, Google Cloud Platform, VS Code
Libraries: pandas, NumPy, Matplotlib