Sandeep Kandrigi

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EDUCATION

Texas A&M University

August 2023 - May 2027

Bachelor of Science in Computer Science | GPA: 3.72/4.00

College Station, TX

- Coursework: Data Structures and Algorithms, Linear Algebra, Discrete Math, Calculus 3, Foundations of Software Engineering, Databases, Computer Organization, Computer Systems, Programming Languages
- Awards: Dean's Honor Roll, Distinguished Student

EXPERIENCE

Software Engineer Intern

May 2025 - August 2025

IBM

Austin, TX

- Saved \$1K+ annually by replacing commercial graphing library with custom 45K+ LOC JavaFX package
- Increased system uptime to 99.9%+ by implementing error handling and retries in Spring Boot microservices
- $\bullet \ \ {\rm Enabled} \ \ {\bf 730+} \ {\rm registrations} \ {\rm monthly} \ {\rm by} \ {\rm connecting} \ {\rm cloud} \ \ {\bf MongoDB} \ \ {\bf Atlas} \ {\rm with} \ {\rm legacy} \ {\bf Java} \ {\rm mainframe} \ {\rm system}$
- Removed redundant data logic and duplicate code across 5 internal tools by expanding shared Java core library

Undergraduate Research Assistant

January 2025 - May 2025

Texas A&M University

College Station, TX

- ullet Optimized TD3-based traffic control to decrease vehicle wait time by several seconds during peak load simulations
- Fine-tuned SAC agents to reduce multiagent collisions in ManiSkill environments by 31% using PyTorch
- Trained PPO agent to play Space Invaders improving average score by 40% over base policy with TensorFlow
- Boosted robot simulation task success rates by 10% using agents developed with curriculum learning strategies

Software Engineer Intern

May 2024 - August 2024

UBS Technologies

Dallas, TX

- Developed internal microservice with Python and gRPC to aggregate user session data from distributed logs
- Improved data ingestion reliability by 40% with Celery with a Redis queue for asynchronous batch jobs
- Cut API response time by 300ms by optimizing PostgreSQL queries via SQLAlchemy and connection pooling
- Integrated metrics export pipeline using **Prometheus** and **Grafana** to monitor service latency and uptime

Technical Director

October 2023 - Present

TAMUhack

College Station, TX

- Amassed 10K+ visitors by developing websites for the largest Texas student-run hackathon with 850+ attendees
- Engineered backend of open-source registration system with 30+ GitHub stars serving 5K users using Django
- Accelerated email dispatch throughput by 4x with multithreaded processing in registration system's backend
- Implemented internal dashboard for organizers to quickly access day-of information with React and PostgreSQL

Projects

Motion - Real-Time Quiz App | Python, FastAPI, PyTorch, TensorFlow, Firebase, Docker

- Built real-time game by deploying self-hosted **LLM** with REST API to generate quizzes from users **Notion** notes
- Reduced quiz latency by 60% via request batching, compression, and caching on custom FastAPI server
- Engineered scalable Firebase architecture supporting 500+ concurrent game sessions with real-time updates
- Containerized backend using **Docker** and deployed via NGINX with over **99.9%** uptime on **DigitalOcean** VPS

Reveille Rewards - Loyalty Program for Small Businesses | React, Django, Python, PostgreSQL

- Won 1st place in Small Business Track at HowdyHack hackathon for building full-stack rewards platform
- Setup backend infrastructure to manage real-time transactions and point updates with **Django** and **PostgreSQL**
- ullet Integrated OCR functionality with Tesseract.js, improving receipt image text extraction accuracy by 20%
- Managed 300+ test user sessions with secure cookie-based authentication via Django's built-in middleware

SKILLS

Programming: Java, Python, JavaScript, TypeScript, C++, C, SQL, Shell, Dart, Kotlin, Go Frameworks: React, Next.js, Django, FastAPI, Node, JavaFX, Spring Boot, gRPC, ExpressJS, Flask, LangChain Tools: Amazon Web Services, Kubernetes, Pinecone, Docker, PostgreSQL, MySQL, MongoDB, Redis, Git