Akshar Raikanti

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EDUCATION

Purdue University — **West Lafayette, IN**
B.S., Computer Science — **December 2026**
B.S., Artificial Intelligence — **GPA: 3.62**
Relevant Courses: Analysis of Algorithms, Systems Programming, Artificial Intelligence, Data Structures and Algorithms
Skills: Python, Java, C, C++, C#, SQL, R, JavaScript, TensorFlow, PyTorch, Relational Databases, NoSQL Databases, Google Cloud (GCP), AWS, Docker Machine Learning, Artificial Intelligence, Nvidia CUDA, Computer Vision, CI/CD Pipelines, OpenShift, Jira, Apache, Git

PROFESSIONAL EXPERIENCE

Kohl's – Kohls Technology — **San Francisco, CA**
Software Engineer Intern — **June 2025 – August 2025**

- Engineered a scalable high-performance backend for an ordering platform with RESTful API, leveraging Java Spring Boot, MongoDB, Google Cloud Spanner cloud databases, achieving 10% increase in responsiveness, 5% reduction in load times.
- Built logistics optimization algorithms using predictive modeling replacing SAS Optimization legacy system, boosting efficiency by 15%; analyzed feature adoption metrics using Qlik and BigQuery and presented insights to leadership.
- Developed intuitive frontend interfaces using Angular (TypeScript), enhancing Kohl's vendor order management, improving inventory tracking, vendor communication, and order accuracy.
- Modernized legacy CI/CD pipelines using GitLab Auto DevOps and container orchestration via Red Hat OpenShift (Kubernetes), accelerating deployments by 10% and improving system reliability; utilized Agile sprint planning and test-driven development for high-quality delivery.

Veygo Rentals – Car Rental Service — **West Lafayette, IN**
Full Stack Developer — **August 2024 – May 2025**

- Built a responsive, intuitive car-rental web app using React, Tailwind CSS, and Bootstrap, increasing user engagement by 30% among Purdue students; implemented real-time inventory tracking and automated booking confirmations.
- Engineered scalable backend services in Node.js and Python, integrating secure payment processing with Stripe API, user management via Firebase Authentication, and multi-tiered access controls, improving operational efficiency by 25%.

TransSIGHT – Data Consulting Firm — **San Francisco, CA**
Data Engineering and Machine Learning Intern — **June 2024 – August 2024**

- Built predictive machine learning models (Random Forest, XGBoost) using scikit-learn and PyTorch, increasing transit demand forecasting accuracy by 20%.
- Leveraged AWS (S3, Lambda) for scalable processing, optimized complex SQL queries enhancing database performance by 10%, and created detailed visualizations for actionable insights.
- Developed an automated end-to-end data pipeline using Apache Airflow, achieving a 30% reduction in ETL processing time, and managed Docker environments, resulting in a 15% improvement in deployment efficiency.

RESEARCH EXPERIENCE

BASF – Agricultural Chemical Solutions — **West Lafayette, IN**
Machine Learning Research Intern — **August 2023 – May 2024**

- Developed statistical models and predictive analytics using Python, scikit-learn, XGBoost, and Tableau, enhancing competitor market-share estimation accuracy by 15%, and delivering actionable benchmarking insights to senior management.

PROJECTS

Local LLM

- Built and deployed a local LLM by fine-tuning a T5 Seq2Seq model on Q&A using Hugging Face Transformers and PyTorch; evaluated with ROUGE metrics, optimized via BitsAndBytes 8-bit quantization, benchmarked latency with custom scripts; served with a secured FastAPI.

Pantry Tracker App

- Built a responsive web app using React and Next.js for real-time pantry item tracking; implemented secure user authentication via Firebase and automated item addition using computer vision with OpenCV.

Machine Learning Assisted Professor Tracking App

- Developed a recommendation platform leveraging RAG with Pinecone Vector DB, Llama 3.1, and sentiment analysis techniques, enabling students to select classes based on reviews; implemented a weighted recommendation system for personalized professor suggestions.

C++ Shell Implementation

- Implemented a custom Unix-like shell in C++ utilizing Lex and Yacc for command parsing, featuring piping, I/O redirection, background execution, command and process substitution, built-in commands, and robust signal handling with resource management.

Custom C Compiler to x86-64 Assembly Implementation

- Designed a compiler using Lex and Yacc for lexical analysis and parsing, implemented register allocation, and generated optimized code.