AVINASH PANDEY

aopandey24@gmail.com | 317-998-3501 | Indianapolis, IN | https://www.linkedin.com/in/avinashopandey

TECHNICAL SKILLS

Programming Languages and Development: Python, Java, C++, JavaScript, TypeScript, Flask, FastAPI, Django, Node.js, ReactJS

Databases and Cloud: MySQL, MongoDB, DynamoDB, SQL Server, AWS (EC2, S3, Lambda), Docker, Kubernetes

Software Engineering and DevOps: RESTful APIs, GraphQL, Git, GitHub, GitHub Actions, Jenkins, CI/CD Pipelines, GitHub Kanban Task Board

System Design and Performance: Scalability, Microservices, Load Balancing, Caching Strategies, API Optimization, Performance Tuning

PROFESSIONAL EXPERIENCE

Aider Ventures — July 2024 – Nov 2024
Machine Learning Engineering Intern — *Indianapolis, IN*

- Developed and optimized backend data processing services using FAISS embeddings and ChromaDB, converting unstructured research papers into structured insights, improving retrieval speed and data accuracy for analytical applications.
- Engineered scalable software pipelines leveraging Gemini API, enhancing data classification and processing of 10,000+ research papers, increasing system performance by 40%.
- Designed and implemented modular data processing components, improving code maintainability and system scalability.
- Built an interactive dashboard to visualize research trends, integrating backend APIs for seamless data retrieval and analysis for non-technical professionals to anticipate potential startup opportunities.

Legislative Services Agency — Dec 2023 – Mar 2024
Business Analyst Intern — *Indianapolis, IN*

- Developed and maintained internal software applications, improving data processing workflows for legislative datasets.
- Enhanced SQL-based data retrieval processes, optimizing database performance and query execution times for legislative bill and its report.
- Built automation scripts to improve efficiency in data validation and reporting, reducing manual workload.
- Provided technical support and software troubleshooting, ensuring seamless integration of business intelligence tools like Tableau and Power BI.

PROJECTS

AI-Driven Diabetes Prediction Pipeline | *Python, Model Optimization* — Aug 2024 – Nov 2024

- Designed a modular training framework for integrating multiple machine learning models, enabling streamlined experimentation in predicting diabetes.
- Applied hyperparameter tuning with GridSearchCV to optimize model performance across Random Forest, SVM, and Deep Learning models.
- Implemented feature transformation and interaction techniques, improving interpretability and ensuring efficient processing of structured health data.

Personalized Financial Tracker | *Java, CLI, File I/O, Serialization* — Aug 2023 – Oct 2023

- Developed Money Buddy, a CLI-based financial tracker in Java, allowing users to log, categorize, and analyze income and expenses with a structured tracking system.
- Implemented data persistence using Java Serialization, enabling users to securely store and reload financial records, with additional support for CSV export for report generation.
- Designed a modular and user-friendly command-line interface, integrating exception handling and file I/O operations, ensuring efficient data management and seamless user interactions.

EDUCATION

Purdue University — December 2024
Bachelors of Science in Computer Science, GPA: 3.3/4.0
Coursework: Architecture of Computers, Intro to Operating Systems, Principles of Software Design

LEADERSHIP & AWARDS

- Dean's List x5, International Jaguar Excellence Award, ALDPES Honors society
- Led orientation of 800+ students fostering academic success and community engagement as a Team Leader
- Secured Industry Sponsorship and organized hackathons for 200+ students as the Vice-President of the Computer Science club resulting in doubled club engagement.