Arjun Mangipudi

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EDUCATION

George Mason University M.S. in Data Analytics Engineering | 2025 - 2027

Purdue University B.S in Computer Engineering | 2021 - 2025
Concentration: Artificial Intelligence and Machine Learning
Relevant Coursework: Machine Learning**,** Data Structures, Python for Data Science, Artificial Intelligence, Software Engineering, Open-Source Software, Object Oriented Programming, Computer Networks, Signals and Systems

SKILLS AND CERTIFICATIONS

Languages/Frameworks: Python, R, SQL, C++, TypeScript, JavaScript, React, Angular, React, Next.js, Pandas, NumPy, VBA
Other Technical Tools: Excel, Power BI, Microsoft Tableau, AWS, Docker, MongoDB
Dev Tools: Visual Basic Studio, GitHub, Git, Vim
Certifications: AWS Cloud Foundations, Automation & Advanced Techniques with Copilot in Excel, Microsoft Power BI Data Analyst Professional Certificate

WORK EXPERIENCE

Intel - *Design Enablement Intern* May 2023-August 2023

- Developed an Excel-based training management application integrating data from three vendor systems, reducing onboarding time by ~20% and improving course accessibility for over 150 employees
- Automated internal reporting workflows by developing VBA and Python scripts to aggregate and clean support ticket data, cutting manual analysis time by 40%
- Built interactive Excel dashboards to visualize workflow efficiency and recurring support issues, helping management identify top pain points and prioritize fixes

PROJECTS

Global Firm-Level Data Analysis using World Bank Surveys August 2025-October 2025
Graduate Research Project – George Mason University

- Conducted global firm-level analysis on 1M+ records from the World Bank Enterprise Surveys from 2006–2024 using Python, R, SQL, and AWS to uncover how governance, education, and health factors influence firm performance across 150+ countries
- Automated data preprocessing and outlier detection using AWS Glue DataBrew and Pandas, improving data integrity across and strengthening the reliability of large-scale economic indicators
- Performed correlation, regression, and time-series trend analysis in Python to evaluate relationships among governance, education, and health indicators
- Used correlation matrices and regression modeling in R to quantify an inverse relationship between sample size and standard error, improving reliability of survey-based economic indicators

Social Media Web App for Food Tracking and Recommendations December 2024-May 2025
Capstone project – Purdue University

- Led development of a full-stack food tracking platform using React, Node.js, and MongoDB Atlas, allowing users to log meals, share posts, and receive personalized meal suggestions
- Designed and deployed user authentication, meal logging, user feeds, and AI-powered meal recommendation features as microservices with RESTful APIs
- Optimized MongoDB Atlas schema design for user data, meal logs, and interactions, enabling faster queries and supporting 2x more concurrent users without performance degradation

AI-Based Package Recommendation Project September 2024-December 2024

- Designed an AI-driven scoring system that evaluated over 100 open-source packages based on metrics such as contributor responsiveness and release frequency helping developers quicky identify high-quality, actively maintained libraries for integration
- Built REST and GraphQL APIs using Node.js to deliver live package quality insights, allowing developers to make faster, data-driven decisions
- Collaborated on algorithm design and metric weighting, resulting in a scoring system that increased recommendation accuracy by 35% in pilot tests

SPECIAL ACTIVITES

Engineering in the World of Data Learning Community August 2021-May 2022

- Led the development of a comprehensive paper analyzing Purdue's existing transportation safety strategy, coordinating research efforts and synthesizing findings within the learning community