

# Arjun Mangipudi

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## EDUCATION

**George Mason University**

M.S. in Data Analytics Engineering | 2025 - 2027

**Purdue University**

Bachelor of Science 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

## WORK EXPERIENCE

**Intel** May 2023-August 2023

*Design Enablement Intern*

- Designed an Excel based application through Visual Basic Studio to allow employees to select courses through three Intel partnered vendors (Siemens, Ansys, and Synopsys) enhancing employee access and management of training opportunities
- Analyzed the ticket management system to develop data-driven visualizations, identifying key trends, recurring issues, and inefficiencies to support decision-making and enhance process efficiency
- Enhanced Intel teams by creating and updating the Design Enablement SharePoint web page to allow for employees to have easier access to information and contacts

## PROJECTS

**AI-Based Package Recommendation Project** September 2024-December 2024

- Engineered metrics such as GitHub commit responsiveness to evaluate the quality of open-source packages using typescript
- Developed both REST and GraphQL API endpoints using Node.js to dynamically retrieve and serve package metadata stored in an AWS S3 bucket, enabling flexible and scalable frontend data queries
- Collaborated on metric design and algorithmic logic to generate package quality scores and exposed results through structured API endpoints for dynamic frontend rendering

**Social Media Web App for Food Tracking and Recommendations** December 2024-May 2025

- Architected a full-stack social media platform using React, Vercel, Render, and MongoDB Atlas to enable meal logging, sharing, and AI-powered recommendations
- Designed and implemented RESTful API endpoints to handle user authentication, meal logging, user feed, and meal recommendations
- Structured and deployed a MongoDB Atlas database with an optimized schema to efficiently store user data, meal logs, and interactions, improving query performance and user experience
- Designed the homepage and primary user interfaces (excluding login/registration) using CSS and React with a focus on responsive design and intuitive UI/UX

**Predictive Modeling of Cryptocurrency Prices Using Machine Learning** May 2024-August 2024

- Developed and implemented linear regression and neural network models to analyze and predict cryptocurrency prices using key market indicators such as market cap, trading volume, and circulating supply using pandas and scikit-learn

**AI Podcast Summarizer Web Application** June 2025-July 2025

- Developed a full-stack AI-powered web application that transcribes and summarizes podcast/audio files using React, Next.js, TypeScript, and Tailwind CSS for a modern and responsive UI
- Integrated OpenAI's GPT-3.5 turbo model for generating accurate and concise summaries, with audio transcriptions handled via OpenAI Whisper
- Utilized Docker for containerized deployment of the FastAPI Python backend, enabling modular, reproducible development and scalable inference handling
- Configured AWS S3 for secure cloud-based media file storage and retrieval, enabling seamless audio/video uploads and access from the frontend

## ACTIVITIES

**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

## SKILLS AND CERTIFICATIONS

Python, Typescript, AWS, GitHub, C++, SQL, VBA, Microsoft Suite, React, Angular, MongoDB, Nodejs, NextJs, JavaScript, CSS, express, Docker, AWS Cloud Practitioner Essentials, Microsoft Excel Professional Certificate