

DEV PATEL

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EDUCATION

Purdue University - West Lafayette, IN

Expected Graduation - May 2026

BS in Computer Science - Concentrations in ML and Software Engineering

GPA: 4.00/4.00

Certificate in Entrepreneurship/Innovation, Minor in Economics and Mathematics

TECHNICAL SKILLS

Languages: (Proficient in) Java, C/C++, and Python (Pandas, Numpy, Sklearn, TensorFlow, Gensim, Langchain)
(Experience with) JavaScript, CSS, Swift, and R

Frameworks/Tools/Technologies: Unix/Linux, Bash, Azure, React, Tailwind CSS, Git, Github, SwiftUI, MS Office

Relevant Coursework: Data Structures, Analysis of Algorithms, Compilers, Systems Programming, Computer Architecture, Object-Oriented Programming, IOS Development, Data Mining and Machine Learning

EXPERIENCE

Altum, LLC - IT and Consulting Services

Chicago, IL (Remote)

Software Engineer Intern | Python, Langchain, Azure, OpenAI

May 2024 - August 2024

- Developed AI agents using **Python** and **Azure** services (OpenAI, Functions, Container Apps, Storage Account) to contribute to the development of NiceFlow.ai, an AI-powered platform
- Combined AI components with **LangChain**, utilized OCR for document text extraction, and applied advanced **prompt engineering** techniques, including logprobs, to construct confidence factors for AI-driven decisions
- Deployed an API that performed vectorized searches (through **Azure AI Search**) on client car warranty documents to efficiently extract critical information while also calculating refund estimates based on cancellation rules
- Gained experience in **Azure Networking** and infrastructure, supporting the development of a microservices-based, event-driven, and scalable platform

The Data Mine - Purdue University

West Lafayette, IN

Data Science Researcher | Python, TensorFlow, Sklearn, Tableau

August 2023 - May 2024

- Collaborated with Raytheon (RTX) to study technology commercialization in the defense industry for **Business Intelligence** and competitive analysis through **Tableau**
- Engineered a model that achieved a **30% improvement** over human baselines for predicting when a technology does not transfer using **BERT** embeddings of award text
- Generated synthetic data via **SMOTE** and **BERT** embeddings to improve classification accuracy by 25% on imbalanced data when assessing current maturity levels of technology
- Functioned in subteams following **Agile** and **Scrum** methodologies to provide iterative software development updates following the feedback from Raytheon's corporate mentor

PROJECTS

FinTalk - Personal Project | React JS, Tailwind, Tanstack Query

Summer 2024

A full stack social media application where users can discuss about everything finance:

- Built a responsive UI using **React** and **Tailwind CSS**, allowing for seamless navigation regardless of device type
- Utilized the **Tanstack Query** (React Query) data-fetching library to enhance performance with features such as mutations for query invalidation, parallel queries for efficient data retrieval, and auto-caching
- Deployed a backend server using **Appwrite Cloud** to integrate essential capabilities such as authentication, file storage, and database management, all through the Appwrite API

CryptoLive - SwiftfulThinking Course Project | Swift/SwiftUI, Combine, Core Data

Summer 2023

Detailed crypto market and currency information, packed into one fintech application:

- Controlled network tasks through a custom class to handle URL responses and completion events
- Cached coin images in the File manager's cachesDirectory and stored portfolio holdings using **Core Data**
- Integrated data fetching services with **Combine**'s publishers to coordinate all interactions between data services and seamlessly update the UI
- Separated code logic from views by implementing **MVVM** (Model-View-Viewmodel) architecture

Sharing Economy - Online Marketplace Platform | Java

December 2022

Led a team of 4 members to build a Java Application for sellers and customers:

- Incorporated socket programming to develop client server connections that allow for instant updates
- Allowed concurrency while preventing race conditions between multiple different clients
- Built a graphical user interface with Java's complex **GUI** libraries (swing and AWT)
- Designed a data persistence solution to store all information on the server side, synchronized automatically