Yash Dumpeta

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EDUCATION

University of Michigan - College of Engineering

Ann Arbor, MI

B.S.E. in Computer Science

August 2022 - April 2026

Relevant Coursework: Artificial Intelligence, Computer Networks, Database Management Systems, DSA in C++, Computer Organization in C, CS Theory, Data-Oriented Programming in Python, Discrete Math, Computational Linear Algebra in Julia

EXPERIENCE

University of Michigan - Information and Technology Services

Ann Arbor, MI

Software Engineering Intern

May 2025 - Present

Utilidata

Ann Arbor, MI

Machine Learning Intern - Perot Jain TechLab

Jan 2025 - Present

- Developing a scalable ETL pipeline to ingest high-volume telemetry from Karman GPU—a software-defined AI platform powered by an NVIDIA chip—into an Apache Parquet database for Utilidata's upstream ML workflows for grid analytics
- Implementing a grid-edge classifier that identifies power-consumption signatures in near-real time, to empower grid operators and electric utilities with faster, actionable insights on the electric grid

InceptEV Ann Arbor, MI

Data Science Intern - Perot Jain TechLab

August 2024 - December 2024

- Conducted a data validation study of simulation accuracy by comparing real-world data against software outputs
- Collaborated on Julia and Python codebase to implement a data pipeline for 40+ hours of data using Pandas, processing raw OBDLink data from Ford Mach-E EV, and developed a custom simulation process tailored to Ann Arbor driving conditions

Spire Investment Partners

McLean, VA

Technology and Cybersecurity Intern

June 2024 - August 2024

- Spearheaded multiple projects simultaneously from initiation to completion, leveraging daily standup meetings, smart deadlines, and effective project management practices within the SDLC to ensure timely delivery and strategic alignment
- Reduced onboarding time by 40% by developing a centralized web portal that automated 3 steps, by implementing RESTful APIs and automated workflows that streamlined approval processes and improved efficiency and robustness
- Designed and implemented a secure, scalable employee directory database to centralize data for 200+ clients

Skylark Drones Remote

Research Intern

June 2023 - August 2023

• Developed a user-friendly UI with features such as input validation and user feedback that streamlined the conversion of extensive thermal image datasets from their native format to a .TIFF format using Python's tkinter interface

PROJECTS

UMazing: Next.js, Node.js, React, TypeScript, Python, PostgreSQL, Railway, Vercel

App | Devpost

- Collaborated with a team of developers *at* MHacks 24 to develop and pitch an AI-powered academic advisor that enhances student decision-making for course selection and academic planning through an analysis of an inputted course audit
- Co-led backend development, processing and analyzing user-inputted PDFs of student audit checklists, and developed Python and Node.js scripts to scrape and parse 400+ EECS courses and flex-techs from school websites and Google Sheets
- Implemented data caching system for previously uploaded audit checklists using PostgreSQL and custom-generated UUIDs
- Developed API routes between the frontend and backend, processing and converting PDF buffers to images for analysis

Selectaraunt: Next.js, Node.js, TypeScript, React.js, TailwindCSS, Supabase, Socket.io, Leaflet, YelpAPI

Link

- Collaborated with a team of developers to develop a real-time multiplayer web app that helps users vote on and discover new restaurants collaboratively. Allows users to create custom settings to filter YelpAPI restaurant responses to swipe on
- Integrated Socket.IO for real-time communication between user clients, allowing for synced voting and result updates
- Developed API endpoints to handle lobby creation, player joining, and lobby state updates, to ensure data consistency
- Implemented a dynamic, swipeable card-based layout to display restaurant options using the react-tinder-card library

recalld: Python, Django, JavaScript, React.js, MySOL

Github Link

- Engineered a dynamic and interactive full-stack flashcard app tailored to facilitate learning and information retention through customizable decks and cards, efficient active recall, and spaced repetition
- Developed a scalable backend with Django's MVT-Architecture and REST framework, implementing custom API endpoints for deck and card management, while optimizing database queries with Django's ORM and MySQL
- Integrated JWT token-based authentication and efficient data serialization, ensuring secure sessions and data privacy

SKILLS

Languages: C++, C, Python, JavaScript, Java, PHP, HTML/CSS, TypeScript, GoLang, SQL, R

Frameworks/Libraries: React.js, Django, Next.js, Node/Express, Pandas, Numpy, Matplotlib, PyTorch,

Tools/Methodologies: Docker, Kubernetes, MongoDB, OracleDB, PostgreSQL, MariaDB, SQL*Plus, Railway, Anaconda