Arjun Bharadwaj

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EDUCATION

University of Michigan

Ann Arbor, MI

Bachelor of Science in Computer Science

Apr 2027

Coursework: Data Structures and Algorithms, Discrete Mathematics, Computer Science Pragmatics, Microeconomics, Macroeconomics, Statistics and Data Analysis

TECHNICAL EXPERIENCE

VOID Tech

Ann Arbor, MI

Software Developer

Jan 2025 - Present

- Developed Open Course, a full-stack web app using Next.js, React, and Supabase to help UMich students form study groups.
- Built real-time posting and authentication features using Supabase Auth.
- Implemented dashboard with dynamic post creation, filtering by tags, location, and event scheduling.

Michigan Robosub

Ann Arbor, MI

Software Team Member

Jan 2025 – Present

- Developed motion control and navigation for an AUV using Python, ROS, and PID controllers.
- Optimized path planning and object detection algorithms; integrated with mechanical/electrical subsystems.

Michigan Blockchain Club

Ann Arbor, MI

Development Team

Jan 2024 - Present

- Completed the 2024 Spring Cohort focused on blockchain, cryptocurrencies, and decentralized finance.
- Conducted research on smart contract-based energy sharing and presented findings as a final cohort project.
- Participated in ongoing discussions around Web3 trends and decentralized technologies.

Project Experience

NBA Performance Prediction Model – Wolverine Sports Analytics

Ann Arbor, MI

Project Team Lead

Jan 2025 - Present

- Built predictive models using Python and regression techniques to forecast NBA player stats based on matchup data.
- Engineered features from player performance trends, team defense stats, and historical matchup data.

SQL Database Emulator

Ann Arbor, MI

Independent Project

 $Apr \ 2025$

- Built an in-memory SQL engine in C++ with a custom command parser and simplified SQL-like query support.
- Implemented indexing (hash, BST) and functor-based filtering for efficient data querying and lookup.

Machine Learning Text Classifier

Ann Arbor, MI

Independent Project

Mar 2024 - Apr 2024

- Built a C++ ML/NLP classifier to predict forum post topics using Bernoulli Naive Bayes.
- Implemented text tokenization, log-likelihood computation, and vocabulary parsing.

TECHNICAL SKILLS

- Languages: C++, Java, JavaScript, Python, SQL, HTML/CSS
- Technologies/Frameworks: React, Next.js, Supabase, ROS, PID Control, Bash, Beautiful Soup
- Tools: Git, SSH, Visual Studio, VS Code

HONORS AND ACTIVITIES

National Merit Scholar • Varsity Tennis Captain • Volunteer Tennis Coach (Adaptive Tennis Program coaching players with disabilities)