Nicholas Walvoord

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EDUCATION

University of Michigan

Ann Arbor, MI

B.S.E in Computer Science and Engineering, Mathematics Minor

Expected May 2026

• **GPA:** 3.96/4.0

• Coursework: Data Structures & Algorithms, Object Oriented Programming, Linear Algebra, Vector Calculus, Discrete Math

EXPERIENCE

Puppod
Software Engineering Intern

Remote

May 2024 – Present

- Building end-to-end web application with Python machine learning back-end to predict user's dog's age based off breed, sex, and learning rate using scikit-learn's random forest regressor model trained with data from 3k+ users.
- Designing corresponding React.js and Next.js front-end to display prediction results and user information.

Simbi Remote

Student Engineer – Develop For Good

Jun 2024 - Present

• Upgrading 9+ year old mobile app's Ruby on Rails front-end to React Native and iOS/Android compatible versions while refactoring JavaScript back-end to meet modern feature requirements for Simbi (YC 16), a 501(c)(3) nonprofit.

Atlas Digital Consulting

Ann Arbor, MI

 $Software\ Analyst$

Jan 2024 - May 2024

- Implemented in-house application and recruitment portal for new members with JavaScript and REST APIs, centralizing convoluted recruitment process with 3 platforms and 6 databases into one scalable full-stack application.
- Developed novel front-end using React.js, JavaScript, HTML/CSS, and MUI components, in alignment with provided designs, building over 20 dynamic web pages that facilitated multi-round recruitment process.
- Engineered back-end functionalities with Google Firebase, Firestore, and Authentication services, elevating app functionality by outlining levels of access for over 50 members and 200 applicants.

Michigan Mentors Ann Arbor, MI

Director of CS Program, Tutor; mzbtutors.com

Sep 2023 - Present

- Produced and taught free intro to computer science summer program for high school students with 28 participants.
- Designed and crafted lecture content and C++ exercises, consisting of 8 units and 6 weeks of material.
- Planned and led personalized weekly school subject and standardized test tutoring sessions for 5+ students.

Saphran Inc. Ann Arbor, MI

Software Analyst

Oct 2023 – Dec 2023

• Constructed responsive data visualization dashboard tailored for asset planning and long-term profit forecasting utilizing JavaScript and JSON objects to filter 30k+ lines of company data by 7 key data features.

PROJECTS

Forum Posts Classifier

Apr 2024

- Designed and trained naïve Bayes machine learning classifier that reads and processes student posts via CSV files, calculates log-probability score of each post, and predicts labels for each given Piazza post with 87% accuracy (n=3000).
- Coded Map class in C++ on top of custom Binary Search Tree library and Iterator class to use as key data structures.

Text Editor Mar 2024 - Apr 2024

- Implemented a fully-functional text editor usable through a terminal-based visual editor, similar to Emacs and Vim.
- Generated custom C++ Linked List and Iterator classes for traversal and editing within text editor application.

SKILLS

- Languages: C++, Python, JavaScript, TypeScript, HTML, CSS, Julia, MATLAB
- Technologies/Frameworks: React.js, React Native, TailwindCSS, Firebase (Authentication, Firestore, Storage), Git
- Interests: Swimming, Water Polo, Jazz & House Music, Wikipedia Browsing, NYT Games