

Johann Tsegay

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EDUCATION

University of Michigan, College of Engineering

BSE in Computer Science, Minor in Business

Ann Arbor, MI

Expected Grad: May 2026

- **Coursework:** Data Structures and Algorithms, Discrete Math, Linear Algebra, Calculus 3, Web Design, **Web Systems**, Computer Organization, Computer Science Pragmatics
- **Honors:** Dean's List (2022 - present), University Honors (2023)
- **Extra-curriculars:** ColorStack, Atlas Digital Consulting, LEAD Scholars, UM Autonomy

WORK EXPERIENCE

Stellantis

Software Engineering Intern

Auburn Hills, MI

May 2024 - Present

- Developing OTA internal tools for electric vehicles in an Agile-team environment utilizing AWS services
- Integrating new microservices into application interface for company vehicles to streamline user productivity

Atlas Digital Consulting

Project Manager

Ann Arbor, MI

August 2023 - December 2023

- Managed and worked alongside a team of five software analysts to integrate an application platform into existing website to streamline recruitment
- Conducted weekly meetings between analyst team and clients to ensure all deliverable deadlines were met
- Applied Scrum framework to facilitate sprint scheduling, group discussion, and code revision

Junior Java

Founder

Leesburg, VA

March 2019 - January 2023

- Founded a 501c3 tutoring organization with 480+ students with a teaching staff of computer science students
- Taught students fundamentals of Java OOP + Graphics and Python through a two week-long summer course; held remote and in-person venues over the span of a month annually

Ultima Insights

Software Analyst

Ann Arbor, MI

August 2022 - December 2022

- Engineered a website utilizing React.js, Tailwind CSS, and Figma to improve front-end maneuverability and accessibility
- Designed and integrated a dynamic filtering system for stock ticker related articles to display top matches from an API
- Restructured existing framework to add back-end functionality of hedging forecast and private investment tools

PROJECTS

Deep Learning Cryptocurrency Prediction Model | Python, Pandas, vaderSentiment

May 2022

- Utilized big data accumulated from social platforms & Coinbase API to predict Bitcoin price fluctuations 48hr in advance
- Developed model in Jupyter Notebook utilizing Pandas and Vader NLP libraries to generate three years of training & test
- Implemented a Bi-Directional LSTM model to cut percent error to sub 1% utilizing look-back window approach.

FitCheck | React.js, JavaScript, Node.js, TailwindCSS

January 2023

- Engineered and designed a social media app for users to post outfits/clothings with a rental option
- Integrated Docker swipe library to produce like/dislike functionality for outfits viewed to train user's interests using Gale-Shapley algorithm
- Employed MongoDB to facilitate POST/GET requests from client server and keep outfits on user feed up-to-date.

Scalable Search Engine | Python, React, Hadoop, Bash

April 2023

- Designed and built an inverted index pipeline to calculate distribution & weight values for sets of documents
- Developed a front-end interface that integrates multi-threaded back-end that returns search queries utilizing PageRank values and inverted index scores

SKILLS

Languages: C++, Python, Javascript, React, SQL, CSS, HTML, Java, MATLAB, German (working proficiency)

Technologies: Git, VSCode, Jupyter, PyTorch