Jotham Teshome

(248)880-1445 | East Lansing, Michigan | jothamteshome@gmail.com | linkedin.com/in/jothamteshome

Education

Michigan State University   Jan 2023 – Expected, May 2024
Master of Science, Computer Science   GPA: 3.86
- *Coursework: Natural Language Processing, Computer Vision, Pattern Recognition, Deep Learning, Algorithmic Graph Theory, Distributed Systems*

Michigan State University   Sep 2019 – Dec 2022
Bachelor of Science, Computer Science   GPA: 3.69
Minor, Business

Experience

MSU College of Engineering   Sep 2023 – present
Graduate Teaching Assistant
- Evaluated assignments to uphold rigorous academic standards in the Web Application Development course
- Provided students with helpful insight on **GitLab** by describing the uses for **HTML**, **CSS**, and **JavaScript** in **front-end** design, including topics such as responsive sizing and dynamic retrieval of data
- Improved students' understanding of **Flask** for **back-end** development by **7%** through hosting regularly scheduled office hour sessions

MSU Federal Credit Union   Sep 2022 – Dec 2022
Software Engineering Intern
- Developed a software project, primarily using **Flutter**, **Dart**, and the **iOS SDK**, for a customer by working with a team of six students to enhance customers' banking experience
- Designed and implemented Digital Transformation of Member Data by working closely with the customer to bring their vision for the product to life

NSF REU Project   Sep 2022 – Dec 2022
Undergraduate Researcher
- Analyzed various research papers to better develop an understanding of **optical wireless communication**
- Utilized **TinkerCAD** for **3D modeling** to develop a 4 x 4 x 4 3D "QR code" that could be used for groundbreaking research into **underwater optical identification**
- Developed an Android application written in **Kotlin** to scan a live camera feed, detect objects, and display an associated description of the object on the screen

Projects

Home Server Website *HTML, CSS, JavaScript, Flask*   Dec 2023 – Feb 2024
- Designed a responsive web interface using **HTML** and **CSS** to easily access content from a personal web server from any device connected to the network
- Built a back-end web application using **Flask** to facilitate uploading and serving content from a personal server
- Significantly improved website performance through the use of **jQuery ajax** calls to retrieve content from the server and the use of **JavaScript** to dynamically render content as it is retrieved

Classification of Pokémon Sprites *Python, Computer Vision*   Sep 2023 – Dec 2023
- Worked with a team of four students to design and implement a **convolutional neural network** model to successfully classify Pokémon sprites within a set of images
- Leveraged image processing techniques as well as machine learning techniques to classify sprites from battle images with up to **86%** accuracy

Identifying and Removing Toxic Comments *Python, NLP*   Jan 2023 – April 2023
- Implemented a **recurrent neural network** model trained on labeled comments from the Civil Comments dataset to identify toxicity and non-toxic content online
- Used a multi-step approach, including a secondary **long short-term memory neural network**, to classify words for toxicity within sentences with up to **91%** accuracy

Skills

- **Programming Languages**:   Python, C++, C, JavaScript, Dart
- **User Interface**:   HTML, CSS
- **APIs/SDKs/Frameworks**:   Flask, Flutter, Vue.js, Node.js, iOS SDK
- **Languages**:   English (fluent), French (novice)