Jotham Teshome

(248)880-1445 • East Lansing, Michigan • teshomejotham@gmail.com • [linkedin.com/in/jothamteshome](https://www.linkedin.com/in/jothamteshome)

**EDUCATION**

**Michigan State University** Jan 2023 – April 2024

Master of Science, Computer Science GPA: 3.85

* Relevant 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

* Relevant Coursework: Data Structures & Algorithms, Operating Systems, Computer Networks, Algorithm Engineering, Web Application Development, Database Systems

**PROJECTS**

**Portfolio Website** *React.js, Bootstrap* May 2024

* Designed a responsive portfolio website to display my experience and projects using **React.js** and **Next.js** to ensure optimal performance and navigation across devices
* Integrated **Bootstrap** for a modern design and utilized **Framer Motion** to create dynamic animations to enhance user experience

**Classification of Pokémon Sprites** *Python, OpenCV, PyTorch* Sep 2023 – Dec 2023

* Collaborated with peers to design a **CNN** model using **PyTorch** to classify Pokémon from their sprite images
* Preprocessed battle images using **OpenCV** for edge detection and shape analysis to identify and isolate Pokémon
* Achieved a classification accuracy of **86%** on preprocessed Pokémon sprite images

**Predicting NFL Betting Odds** *Python, BeautifulSoup, Scikit-learn, PyTorch* Sep 2023 – Dec 2023

* Cooperated with others to design various models using **Scikit-learn** and **PyTorch** to predict NFL game point spreads
* Developed a dataset using **BeautifulSoup** to scrape game data from Pro Football Reference to use for model training
* Achieved results comparable to sportsbook predictions, with an MSE of **193.8** and R2 of **0.137** with our neural network

**Identifying and Removing Toxic Comments** *Python, TensorFlow* Jan 2023 – April 2023

* Partnered with a peer to design an **RNN** model using **TensorFlow** to identify toxicity in online comments
* Generated subword embeddings using **FastText** to better detect potential variations of toxic words in comments
* Achieved a word-level classification accuracy of **91%** using trigram embeddings in our multi-appearance word model
* Developed an automated system to censor toxic words to improve the efficiency of real-time content moderation

**EXPERIENCE**

**MSU College of Engineering** *Flask, HTML, CSS, JavaScript*Sep 2023 – April 2024

Graduate Teaching Assistant

* Evaluated assignments to uphold rigorous academic standards in the Web Application Development course
* Assisted 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** *Flutter, Dart, SQL* Sep 2022 – Dec 2022

Software Engineering Intern

* Collaborated with colleagues to enhance MSU Federal Credit Union’s mobile banking apps using **Flutter**, **Dart**, and **SQL**
* Designed an aesthetically pleasing user interface using **Flutter** and **Dart** to enhance customers’ banking experience
* Implemented a modern peer-to-peer transfer system featuring usernames, QR codes, and NFC to increase usability
* Created a system using **Google Places API** to notify users of deals at local businesses based on shopping patterns

**SKILLS**

* Python, C++, C, JavaScript, Dart**,** Node.js, React.js, Flask, Flutter, CSS, HTML, Bootstrap, OpenCV, PyTorch, TensorFlow