

# Jotham Teshome

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## EDUCATION

### Michigan State University

Master of Science, Computer Science

January 2023 - April 2024

GPA: 3.85

- Relevant Coursework: Natural Language Processing, Computer Vision, Pattern Recognition, Deep Learning, Algorithmic Graph Theory, Distributed Systems

### Michigan State University

Bachelor of Science, Computer Science, Minor in Business

September 2019 - December 2022

GPA: 3.69

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

## WORK EXPERIENCE

### Stefanini Group - Software Engineer

April 2025 - Present

- Created a globally distributed **Python** tool to automate the creation of various **SAP** documents, cutting creation time by **70%**
- Automated document pipeline with **FastAPI**, **RabbitMQ**, **OpenAI API**, and **Azure Blob Storage**, handling hundreds of requests monthly
- Integrated an **AI chatbot** by designing dialog flows and routing requests via **REST APIs** to trigger **SAP** document generation pipelines
- Deployed containerized services in **Kubernetes** with **Helm** and **ArgoCD**, ensuring consistency and cutting deployment effort by **40%**

### Versive - Machine Learning Engineer

June 2024 - December 2024

- Built **CNN** models in **PyTorch** to detect tumors in MRI scans, enhancing diagnostic accuracy by **10%** and supporting early detection
- Boosted model performance by **10%** through **YOLOv8 segmentation** to focus on critical tumor regions during prediction
- Applied **transfer learning** with pretrained **ImageNet** weights to reduce training time **30%** and improve precision across scans

### Michigan State University - Graduate Teaching Assistant

August 2023 - May 2024

- Guided students in building responsive front-end projects using **HTML**, **CSS**, and **JavaScript**
- Improved student project outcomes by **7%** through office hours and support with **Flask** back-end design and **GitLab** version control
- Reviewed and graded technical assignments for the **Web Application Development** course, ensuring rigorous academic standards

### Versive - Software Engineer

January 2023 - July 2023

- Developed a secure hospital app with **AWS Amplify** and **RDS**, improving MRI access times and reducing verification time by **20%**
- Built **Flask** APIs and connected **MySQL** backend with **React** frontend for seamless user experience
- Ensured patient data security with encryption, **RBAC**, and **MFA**, achieving **100% compliance** with HIPAA standards
- Leveraged **Docker** containers and **Git** for deployment and version control, improving development cycle efficiency by **15%**

### MSU Federal Credit Union - Software Engineer Intern

September 2022 - December 2022

- Designed a peer-to-peer transfer system in **Flutter/Dart** with QR code and NFC support, increasing user transaction speed by **25%**
- Integrated **Google Places API** to send personalized deal notifications based on shopping patterns, boosting app engagement by **18%**
- Contributed to app improvements using **Flutter**, **Dart**, and **SQL**, enhancing overall app stability and reducing crash rates by **12%**

## PROJECTS

### Identifying and Removing Toxic Comments, Python, TensorFlow

- Built an **RNN** model in **TensorFlow** to detect toxicity in online comments, collaborating with a peer for model architecture
- 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

### Portfolio Website, Node.js, Next.js, React, Bootstrap, JavaScript

- Designed a responsive portfolio website using **React** to display my experience and various projects
- Optimized performance through static site generation using **Next.js** to ensure a quality user experience
- Integrated a modern UI using **Bootstrap** to create a polished, aesthetically pleasing interface

## SKILLS

<b>Programming:</b>	Python, C/C++, Java, Kotlin, CUDA, JavaScript, TypeScript, HTML, CSS, Dart
<b>AI/ML:</b>	PyTorch, TensorFlow, Scikit-learn, NumPy, Pandas, YOLO, OpenCV, FastText, OpenAI API
<b>Web &amp; App Dev:</b>	React, Next.js, Node.js, Flask, FastAPI, Flutter, Bootstrap
<b>Databases:</b>	SQL, MySQL, PostgreSQL, DynamoDB, MongoDB
<b>Cloud Platforms:</b>	AWS, Azure, GCP
<b>DevOps &amp; IaC:</b>	Docker, Kubernetes, Git, GitHub Actions, RabbitMQ, REST
<b>Tools &amp; Platforms:</b>	Linux, Unix, Windows, macOS, Bash, SAP, Postman