Amanuel Tefera
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EDUCATION

Hope College, Holland, MI   Expected graduation: May 2026
Bachelor of Arts in Computer Science

Honors/Awards:
Hope forward scholarship, posse foundation finalists

WORK EXPERIENCE

Artificial Intelligence Research, Hope College, Holland, MI   **Aug 2023 - Present**
Computer Science Department Research Assistant
- Collaborated with Dr. Omofolakunmi (Fola) Olagbemi to develop and implement an innovative AI system to predict optimized motion for nurses.
- Enhanced departmental efficiency and task performance through the integration of artificial intelligence.
- Utilized XCM to effectively sample test cases, optimize big data processing, and ensure AI model explainability across complex frameworks.

Boerigter Center for Calling and Career, Holland, MI   **Jan 2023 – May 2023**
Career *Ambassador*
- Assisted a diverse group of thirty-five students/guests by seamlessly connecting them to the comprehensive services provided by the Boerigter Center.
- Demonstrated efficiency in managing inbound and outbound calls, delivering exceptional customer service, and promptly addressing inquiries.
- Managed email correspondence adeptly, providing clients/customers with timely and accurate information.

Research at the Hope College Physics Department | Aug 2022 – Nov 2022
 Hope college particle accelerator
- Conducted experimental research at the Hope College Physics Department, working under the guidance of Andrew Bunnell.
- Explored particle physics and acquired proficiency in operating the Hope College particle accelerator.

CFL Student Consultant   **Jan 2024 - Present**
- Currently working on an interdisciplinary team of 4 consultants on pro-bono projects addressing non-profit clients' challenges
- in A team to develop an automated new hire paperwork processing system for IKUS Life Enrichment Services using Python
- Researching options to balance initial cost, ongoing expenses, and ease of maintenance
- Creating interactive prototypes to demonstrate proposed solutions and gather stakeholder feedback
- Authoring detailed requirements documentation, design specifications, and operational manuals
- Gaining hands-on Python programming experience by applying academic concepts to benefit local community partners
- Developing project management, teamwork, communication, analytical and technical skills

TECHNICAL SKILLS

 Computer Languages: Java, Python, JavaScript, HTML/CSS
 Libraries: pandas, NumPy, matplotlib, sklearn, seaborn, xgboost
 Language: fluent in Amharic

PROJECTS

Data Analysis and Classification Project
- Applied advanced Python programming skills to analyze and manipulate a Pokemon dataset.
- Utilized the NumPy library for efficient data manipulation and numerical operations.
- Implemented the k-Nearest Neighbors (k-NN) algorithm to classify and organize the Pokemon data set.
- Achieved accurate sorting and classification results, leveraging the power of data-driven decision-making.
- Demonstrated proficiency in machine learning techniques to enhance data understanding and categorization.

Facial Recognition Application
- Developed real-time facial recognition application in Python using OpenCV library.
- Imported haar cascade classifier to detect frontal faces in video stream.
- Captured video frames, converted to grayscale, applied classifier to identify faces.
- Drew bounding boxes around detected faces with over 90% accuracy.
- Demonstrated proficiency with OpenCV and machine learning for computer vision projects.

Automated Form Filler Application
- Developed a Python application to automatically populate and submit Google Forms using Selenium and CSV data
- Imported CSV file and extracted data rows into lists using the CSV module
- Launched Chrome browser and navigated to target form URL using Selenium
- Located form input elements by XPath and populated with CSV data
- Used explicit waits to ensure elements were present before interacting
- Looped through CSV rows to repeatedly fill and submit forms with different data
- Demonstrated proficiency in test automation, web scraping, and CSV processing