BINIYAM GEBREYOHANNES

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EDUCATION

University of Washington - Seattle　　　　　　　　　　　　**Expected Graduation Date: June 2026**

B.S. in Computer Science

Relevant Courses: Data Structures & Parallelism, Distributed Systems, Algorithms Design, Object Oriented Design/Programming, Linear Algebra/Discrete Mathematics, Web Development, Software Engineering, Computer Vision

Organizations and Awards: ColorStack, NSBE, Martin Foundation Scholar, David & Cathy Habib Scholarship

TECHNICAL SKILLS & SOFTWARE PROFICIENCIES

Languages: Python, Java, C, Linux, Unix, Relation Database (MySQL), TypeScript, JavaScript, HTML, CSS, React

Tools/ Technologies: AWS, EC2 , S3, PyTorch, LLaMA, Git, OpenCV, Custom Vision, Pandas, Matplotlib, Agile

EXPERIENCE

Software Engineering Intern, STEMTAC　　　　　　　　　　　　*January 2024 – June 2024*
- Led effort to developed a face detection model with **OpenCV** and **YOLO**, training on more than **5,000** images, increasing accuracy by **25%** and reducing false positives.
- Led a **20**-member team over two **2**-month phases to reengineer facial recognition software using **Python,** enhancing system scalability and efficiency.

Undergraduate Research Intern, University of Washington　　　　　　　　　　　　*June 2024 – August 2024*
- Analyzed over **1** year of electricity usage data from **140+** mini-grid customers by using **Python** and clustering **Machine Learning algorithms** to identify consumption patterns, improving forecasting accuracy by **35%**.
- Developed predictive time-series machine learning model to forecast demand trends with **82%** accuracy.

Intro to Computer programming, TA　　　　　　　　　　　　*September 2023 - December 2023*
- Tutored **33** students in **Python**, increasing overall class performance by **20%** through lessons on data types, loops, and **object-oriented programming (OOP)**.
- Resolved **50+** coding challenges, assisting with debugging and teaching best practices in **Python**.

PROJECTS

StockWise: AI-Powered Investment Insights
- Developed StockWise, an **AI**-powered news aggregator using **LLaMA** for real-time sentiment analysis, boosting portfolio profitability by **18%** through **25+** automated alerts.
- Led a team of engineers to build **StockWise**, managing workflows and ensuring project success.

Team Productivity Bot
- Increased team productivity by developing a **Python** application to query a Discord server and query data from an **AWS EC2** instance using the **EC2_metadata API**, automating over **20+** routine tasks per day.
- Integrated an **AWS EC2** instance with a live Discord server and built a bot to automate responses, reducing manual interventions by **80%,** streamlining communication and task management for a **16**-member team.

Task Management Web App
- Designed a web-based task management app using **React.js** and **RESTful APIs**, automating **20+** daily tasks and increasing team productivity by **40%**.

Weather Manager App
- Processed **1** million rows of weather data by developing a **Java** application with **binary search algorithms**, improving efficiency from **O(n)** to **O(log n)** and reducing computation time by **99.99%**.

LEADERSHIP & ACTIVITIES

LSAMP	*Team Manager*	**January 2022**	**- Present**
Ethiopian Youth Community	*Secretary*	**September 2023**	**- Present**
STEMTAC Foundation	*Team Manager*	**January 2024**	**- April 2024**
Microsoft Student Ambassadors Program	*Student Developer*	**October 2024**	**- Present**