Henok Misgina Fisseha

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EDUCATION

*GPA: **4.0*** | **Williams College**, Williamstown, MA: *Bachelor of Arts in **Computer Science** | Dean's List* *Expected Grad. June 2026*
Courses: Data Structures & Algorithms, Algorithm Design & Analysis, Programming Languages, Deep Learning, NLP
Certificates**:** Codepath Advanced Technical Algorithms, Cornell University Machine Learning Foundations

PROFESSIONAL EXPERIENCE

Klear Inc. **San Francisco, CA - Remote**
Software Engineer Intern *May 2024 – August 2024*

- Reduced page load times by **75%** by programming and integrated a front-end architecture for a **Python Flask** backend
- Developed a scalable prototype that integrated Allianz's insurance API into Klear Inc.'s flagship financial platform, providing insurance for **200+** clients engaging in high-cost transactions
- Collaborated with a cross-functional team of **4** SWE interns to deliver a complete API prototype 1 week ahead of schedule

Microsoft **Cambridge, MA - Hybrid**
AI Studio Fellow *August 2024 - December 2024*

- Develop **News Copilot**, a news categorizing machine learning model that **eliminates manual news categorization** and **decreases labeling time** to a benchmark goal of **80%** through leveraging text classification and LLMs
- Collaborate with a cross-functional team across **2** universities under the advisory of a **Principal Director of AI Engineering at Microsoft** to **refine** model accuracy score while **documenting** iterative development for reporting.

Williams Robotics Lab **Williamstown, MA**
Software Engineer and Research Assistant *May 2024 – August 2024*

- Contributed to **addressing the gap** in affordable and user-friendly 3D modeling tools by developing backend functionalities for *Conversation*, a new software aimed at delivering an intuitive yet highly productive 3D modeling experience
- Integrated **2 novel features**: 1) the ability to copy a line/arc by an offset and 2) the addition of division points on lines/arcs

Center for Learning in Action, Williams College **Williamstown, MA**
Backend Developer *April 2024 – August 2024*

- Developed a scalable backend architecture in **Golang**, which improved database query by **35%**.
- Optimized transportation at Williams College by creating a ride-matching algorithm which leverages Google Maps API

Williams College Peer Tutoring Center **Williamstown, MA**
Content Tutor, Courses**: Intro to Computer Science, Data Structures and Algorithms, Linear Algebra** *May 2024 - Present*

- Provide hands-on support in data structures and programming, direct debugging assistance and concept understanding

Williams College Computer Science Department **Williamstown, MA**
Teaching Assistant, Courses: Introduction to Computer Science, Data Structures and Algorithms *May 2023 - Present*

- Assist **80+** students in writing efficient code and executing appropriate **Python** and **Java** debugging techniques which bolstered their understanding of common data structures and algorithms and enhanced their problem solving skills
- Provide individualized debugging assistance to resolve programming roadblocks and explain the concept behind algorithms

Williams College Computer Science Department **Williamstown, MA**
Causal Inference Research Assistant *May 2023 – May 2024*

- Designed and implemented a **Python** algorithm to **emulate biological contagion** by applying causal chain graph models

SELECTED PROJECTS

ArtScript (Self Made Programming Language)

- Created a domain-specific programming language using **F#** with colorized graphics for teaching children basic programming
- Included stepwise processing points such as AST creation and parsing, outputting string responses, and Graphviz integration

Bubble Shooter Game

- Implemented a simple shooter 2D game in **Java** with directional movements, multicolor UI, and offense-defense mechanisms

ASCII Object Visualizer

- Developed a **C++** program that renders rotating image of objects and simulates light using linear interpolation

SKILLS

- Programming Languages: F#, C#, C++, Python, Golang, Java, C, SQL, JavaScript, HTML, CSS
- Frameworks: .NET, Pytorch, Git, Flask, AWS, Django, React

LEADERSHIP EXPERIENCE

Alumni Relations Officer, **ColorStack @ Williams College** Jan 2024 - Present

- Curated mentorship and career development opportunities to support Black and Latinx students in Computer Science through outreach and establishing connections with industry professionals

STEM Career Peer Advisor**, 68' Center for Career Exploration @ Williams College** Feb 2023 - Present

- Mentored over **30** students – offering career advice, networking workshops, and collaborating with tech industry experts

AFFILIATIONS

ColorStack • Codepath • Break Through Tech AI • Williams Students Online • Williams EthioEritrean Student Association