Philimon D. Ayalew

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Education

Bremen	**Computer Science - BSc.**, *Constructor University Bremen*		*Sep 2022 - Jun 2026*
Remote	**Software Engineering Program**, *ALX Holberton*		*Jan 2021 - Feb 2022*

CU Courses: Algorithms & Data Structures | Operating Systems | Programming in C & C++ | Automata | Computer Vision..

ALX Courses: System Design & DevOps, Backend development, Infrastructure Development, Foundational Software Engineering..

Experience

Constructor University, *Bremen, Germany* | Teaching Assistant for Intro to Python — *Sep 2024 - Jan 2025*

- Served as a Teaching Assistant for Intro to Python, mentoring over 70 students through weekly tutorials, one-on-one support, and complex programming assignments.
- Delivered personalized tutoring sessions to assist students with Python fundamentals, algorithms, and debugging.

Everest Systems GmbH, *Remote* | Software Developer, Working Student — *Feb 2023 - Nov 2024*

- Developed and optimized the platform's Authentication System, contributing over **50%** of its functionality, enhancing security and user access by streamlining authentication.
- Restructured the platform's page rendering by integrating a presentation layer, improving data fetching and rendering efficiency by **30%**, enhancing user experience.
- Collaborated with an external team to integrate a proprietary validation language to our authentication system, allowing for verbose condition enforcement. This enhancement resulted in a **25%** increase in condition usage across the system.
- Boosted the authorization system's test coverage by **90%** using jest, improving system reliability and reducing manual testing efforts by **50%**.

Google Developer Student Club, *Bremen, Germany* | Technical Lead — *Sep 2022 - Jun 2023*

- Led student project preparation for Google Challenges, managing a team and incorporating **TDD** principles into the development of a full-stack web application, which qualified for the Hult Prize Global Semi-Finals in Tunis.

The Room/ALX, *Remote* | Software Engineering Technical Mentor — *Aug 2022 - Feb 2023*

- Taught and mentored over **1000+** students from across Africa in software engineering, delivering lectures, leading hands-on workshops, and providing guidance on key topics..
- Successfully certified over **250** students, increasing certification rates by **30%** through personalized mentoring, rigorous assessments, and targeted feedback.
- Developed a Slack bot using **TypeScript** and the **Slack API** to streamline certification handover, perform plagiarism checks, and answer general inquiries for over **1000+** students.

Projects

SoftRenderer | github — *Aug 2024 – Present*

3D rendering engine implemented in pure C | Used: **C**, **.NET**

- 3D renderer that supports both **Rasterization** and **Ray Tracing** rendering techniques.
- Written completely from scratch with little to no external libraries used.

grubOn | github — *Feb 2024*

A bite-sized solution to a global problem. | Used: **Flutter**, **Firebase**, **Tensorflow**, and **Google Maps**

- Grub On is your gateway to reducing food waste and fostering community connections.
- Global 100 finalist in the 2024 Google Solution Challenge.

Skills

Programming Languages:	C#, C/C++, Typescript, Python, dart
FrameWork/Libraries:	.NET, Flutter, Next.js, Vue.js, Robot Framework, PyTest, Selenium
Languages:	English (**C2**), German(**A2**)
Others:	Firebase, Python (TensorFlow, Keras, Pandas), PostgreSQL, Git, Nginx, TDD