

EDEN TAKELE ABTEW

Applied Cybersecurity MSc | Software Supply Chain Security
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Berlin, Germany

PROFILE

Applied Cybersecurity MSc (Erasmus Mundus CyberMACS) with a software engineering background across full-stack web, backend APIs, and data pipelines. Thesis on software supply chain attack detection. Open to entry-level roles in IT, cybersecurity, or software development.

EDUCATION

SRH Berlin University of Applied Sciences

Sep 2025 – Aug 2026

MSc Applied Cybersecurity (Erasmus Mundus CyberMACS Scholar, Year 2 Mobility)

Berlin, Germany

- **Thesis** (defended 4 Aug 2026): *Cross-Layer Evaluation and Fusion of Build-Time and Runtime Detection for Software Supply Chain Attacks.*
- Evaluated build-time static analysis and eBPF-based runtime monitoring across seven benchmark supply chain attack scenarios; proposed a cross-layer fusion framework combining both detection signals.
- Designed custom coverage metrics to evaluate detection at both the individual attack step and the full attack chain.
- Coursework: IT Security Management & DevOps, Cybersecurity Management Project, Open-Source Intelligence (OSINT).

Kadir Has University

Sep 2024 – Sep 2025

MSc Applied Cybersecurity (Erasmus Mundus CyberMACS Scholar, Year 1 Mobility)

Istanbul, Turkey

- Coursework: Computer Networks & Security, Operating Systems & System Programming, System Exploitation & Penetration Testing, Cyberwarfare, Cryptography, Research Methods & Scientific Ethics, Data Science Tools.

Addis Ababa University

Oct 2018 – Jul 2023

BSc Software Engineering

Addis Ababa, Ethiopia

- Coursework: Data Structures & Algorithms, AI & Machine Learning, Distributed Systems, Database Management Systems.

TECHNICAL SKILLS

Security: Software Supply Chain Security, eBPF-based Runtime Detection, Build-Time Static Analysis, CI/CD Security, SBOM & Dependency Analysis, Container Security, Threat Modeling, OSINT, Penetration Testing (basics)

Programming: Python, JavaScript, TypeScript, PHP, Bash, SQL

Systems & Tooling: Linux, Docker, Git, GitHub Actions, LaTeX

Web & Backend: Node.js, Express.js, Next.js, React, Django, Laravel, REST APIs

Databases: PostgreSQL, MySQL

Data & ML: Pandas, NumPy, BERTopic, RoBERTa, TensorFlow

RESEARCH & PUBLICATIONS

IACyC 2026 | Long abstract submission based on MSc thesis: cross-layer evaluation and fusion of build-time and runtime detection for software supply chain attacks.

Thesis codebase | Constructed synthetic malicious packages for controlled detection experiments; log-based cross-layer evaluation over sanitized telemetry from build- and runtime tracers. [Repo](#)

PROFESSIONAL EXPERIENCE

Research Assistant

Oct 2024 – Sep 2025

TÜBİTAK (Scientific and Technological Research Council of Turkey)

Istanbul, Turkey

- Built a Python pipeline to preprocess 6M+ multilingual YouTube comments for destination-marketing research; cleaned text and emojis with Pandas and NumPy.
- Applied BERTopic and RoBERTa to model topics and sentiment across viral music-video comment corpora (“Despacito”, “See You Again”) to study travel curiosity.
- Designed and deployed the project results website. [Project site](#)

Junior Full-Stack Developer

May 2023 – Aug 2024

Aquila ICT Solution

Addis Ababa, Ethiopia

- Built an e-commerce backend in Laravel: product/order/inventory logic, dynamic pricing, and payment gateway integration.
- Designed a MySQL schema for high-concurrency workloads across products, customers, and transactions.
- Implemented authentication and role-based access control with Laravel Sanctum.

Software Developer

Jama Software Solutions

Feb 2023 – Aug 2023

Addis Ababa, Ethiopia

- Built a flower-delivery MVP with Next.js and React; designed the PostgreSQL schema and integrated Prisma ORM for type-safe queries.
- Delivered SSR product catalogs, persistent carts, and automated order workflows; scoped requirements with an early-stage startup team.

SELECTED PROJECTS

Plant Disease Detection | *Flutter, Django, TensorFlow, OpenCV*

[GitHub](#)

- Real-time leaf disease detection pipeline with a Django REST API serving TensorFlow inferences to a Flutter camera/gallery client; augmented Kaggle datasets to improve model generalization.

Data Shelf | *Flutter, Dart, Firebase, REST APIs*

[GitHub](#)

- Crowdsourced dataset marketplace for AI researchers; “Request-to-Collect” workflow with integrated payments and offline-first sync for field data collection.

CERTIFICATIONS & LANGUAGES

Cisco Certified Network Associate (CCNA): Cisco Systems, Inc. | Valid Jun 2025 – Jun 2028 | ID: CSC014934985
Languages: English (fluent) | Amharic (native) | German (A2, in progress at VHS Berlin)