



TAMERU HAILESILASSIE

SENIOR SOFTWARE ENGINEER

Experienced software engineer with 7 years of expertise in building scalable, high-performance applications. Proficient in Angular for frontend development and Spring Boot for backend services. Skilled in leveraging AI/ML technologies to enhance system architecture, optimize development processes, and solve complex problems. Committed to delivering innovative solutions that drive organizational success.

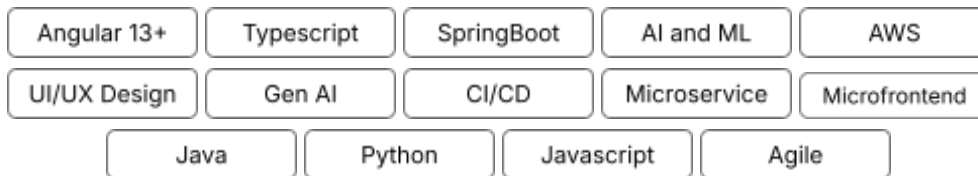
Addis Ababa, Ethiopia

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KEY SKILLS



PROFESSIONAL EXPERIENCE

Senior Software Engineer

*Energis Cloud,
Belgium, Brussels
2024- present*

- Developed and maintained scalable applications using Angular 18, ensuring high performance and responsiveness
- Implemented NgRx for state management, enhancing application efficiency and facilitating better data flow across components.
- Leveraged Angular Material UI to create user-friendly, responsive interfaces, improving overall user experience and accessibility.
- Successfully led the migration of legacy AngularJS applications to modern Angular frameworks, enhancing maintainability and performance.
- Designed and developed reusable components and modules, adhering to best practices for modular architecture and code reusability.

Senior Software Engineer

*EthSwitch S.C.,
Addis Ababa, Ethiopia
2023- present*

- Engineered secure and scalable backend services using Java Spring Boot, ensuring compliance with industry regulations and standards critical to fintech applications.
- Led a microfrontend team to develop modular, scalable applications, improving deployment efficiency and enabling rapid feature iteration in a dynamic fintech environment.
- Delivered compelling presentations to clients and stakeholders, clearly articulating technical solutions, project milestones, and architectural strategies
- Developed and documented secure RESTful APIs, facilitating seamless integration between frontend and backend services while ensuring data integrity and security.
- Spearheaded architectural design discussions, selecting optimal technologies and frameworks that align with business goals and enhance performance in financial applications.

AI Engineer

Ethiopian Artificial Intelligence
Institute,
Addis Ababa, Ethiopia
2022–2024

- Designed and implemented machine learning models for computer vision and natural language processing, driving innovative solutions in various domains, particularly healthcare.
- Spearheaded the creation of a machine learning model for weather forecasting in partnership with the Ethiopian Meteorology Institute, improving predictive accuracy and operational efficiency.
- Engineered machine learning solutions targeting critical health sector problems, including disease prediction, patient risk assessment, and personalized treatment recommendations.
- Conducted extensive model evaluation using performance metrics such as accuracy, precision, recall, and ROC-AUC, fine-tuning algorithms to achieve optimal performance.
- Successfully deployed machine learning models into production environments, ensuring scalability and integration with existing healthcare systems.
- Worked closely with cross-disciplinary teams, including data scientists, healthcare professionals, and software engineers, to develop comprehensive AI solutions that address real-world challenges.

Full Stack Engineer

Capital Freight Solutions, Inc.
Burlingame, CA, USA
2022–2024

- Engineered responsive web applications utilizing the Angular framework, ensuring optimal performance and user experience across devices.
- Designed and implemented dynamic user interfaces through Angular components, directives, and services, enhancing application functionality and user engagement.
- Developed robust RESTful APIs using the Spring Boot framework, facilitating seamless communication between frontend and backend services.
- Experienced with cloud platforms like AWS, Azure, and Google Cloud Platform.
- Proficient in leveraging cloud platforms, including AWS, Azure, and Google Cloud Platform, to deploy and manage scalable applications and services.

Software Engineer

Ezangery Medical PLC,
Addis Ababa, Ethiopia
2020–2024

- Played a pivotal role in designing, developing, and implementing an Electronic Health Record (EHR) system.
- Ensured the EHR system's compliance with the standards and guidelines set by the Ethiopian Ministry of Health.
- Integrated the EHR system with DHIS2 (District Health Information Software 2) for comprehensive health data reporting and analysis.
- Managed and optimized database structures for efficient storage and retrieval of sensitive patient health information.
- Collaborated with healthcare professionals and stakeholders to gather requirements and deliver a user-friendly and effective digital health solution.

Lecturer

Addis Ababa Science and
Technology University,
Addis Ababa, Ethiopia
2017–2024

- Delivered comprehensive lectures on the fundamentals of programming in C++, fostering critical thinking and problem-solving skills among students.
- Taught advanced Java programming courses, emphasizing best practices, design patterns, and software development methodologies to prepare students for real-world applications.

Machine Learning Intern

Genome Institute of Singapore,
Singapore, Mar-2017-Jul-2017,

Software Engineering Intern

Information Network Security
Agency(INSA),Addis Ababa
Feb 2014- Jul-2014

- Instructed courses on data structures and algorithms, enhancing students' analytical abilities and understanding of efficient data manipulation techniques.
- Engaged in research activities, contributing to academic papers and publications that address current trends and challenges in software engineering.
- Provided mentorship to students on research projects and coursework, fostering a supportive learning environment that encourages intellectual curiosity and innovation.
- Developed a model to predict tissue of origin for publicly available cancer and normal RNA-Seq data (TCGA, ICGC,GTEEx). Comparison of support vector machines and neural networks using cross validation.
- Produced technical specifications and code documentation
- Participated in the assessment of new application ideas
- Participated in a web based HRMS software development

EDUCATION

M.Sc. in Computer Science and Engineering

National University of Science
and Technology,
Moscow, Russia
2015-2017

- **Specialisation:** Innovative software systems: design,development and application.
- **CGPA:** 5.0/5.0
- **Master's Thesis:** Rule extraction Algorithm for Deep Neural Networks

B.Sc. in Electrical and Computer Engineering

University of Gondar,
Gondar, Ethiopia
2010-2015

- **Specialisation:** Computer Engineering
- **CGPA:** 3.83/4/0
- **Thesis:** Lung Cancer detection system Using Artificial Neural Network

Training

Center for Excellence in Telecom
Technology and Management,
Mumbai, India
Aug 2018-Oct 2-18

- Short term training on Next Generation Computer Network Technologies

SELECTED ACHIEVEMENTS

Research

- Published 2 peer-reviewed papers on AI explainability and financial market prediction.

Management

- Led teams of 5–10 developers and researchers to deliver 3+ enterprise-scale solutions.

Mentorship

- Mentored 15+ students in research and technical projects, delivering solutions for AI/ML, fintech, and healthcare challenges.

PROJECTS

Data Analysis and Visualization Portal for REACH Ethiopia

Collaborated with REACH Ethiopia, supported by USAID, to automate data analysis and visualization across multiple projects. Key contributions included:

- **Project Management and Data Visualization Platform:** Developed a comprehensive portal using Angular for frontend and Spring Boot for

backend. This platform facilitated the collection of field data via Kobo Toolbox.

- **Data Integration:** Engineered a seamless integration of collected data with project management and HR systems, enhancing operational efficiency and data accessibility.
- **Visualization Implementation:** Integrated Metabase for data visualization, enabling stakeholders to derive insights and make informed decisions based on real-time data analysis.

PUBLICATIONS

Journals and Conferences

- Hailesilassie, Tameru. "Rule Extraction Algorithm for Deep Neural Networks: A Review." arXiv preprint arXiv:1610.05267 (2016).
- Hailesilassie, Tameru. Financial Market Prediction Using Recurrence Plot and Deep convolutional Neural network
- Presented a poster in Thirty-second NIPS Annual Conference held at Montreal, Canada titled "Rule Extraction Algorithm For Deep Neural Networks: A Tool Towards

AWARDS AND SCHOLARSHIPS

Awards

- Certificate of recognition for excellent academic achievement
Gondar, Ethiopia, May 01, 2015
- 1st Class Student award in the class of 2015
Gondar, Ethiopia, Jul 04, 2015
- Certificate of Recognition for presenting project on Annual Research Conference, Technology Transfer Exhibition of University of Gondar
Gondar, Ethiopia, July 23, 2015
- Recognition of Very Great distinction student, class of 2015 in Technology faculty.
Gondar, Ethiopia, Jul 04, 2015
- National Academic Award of 2015 CIET,
August 19, 2015
- Certificate for participating in the international summer school MISIS,
22 Aug, 2016,

Scholarships

- Russian Federation Government-sponsored Scholarship
Moscow, Russia 2015

LEADERSHIP

Leadership Development program student Association president

*University of Gondar,
Gondar, Ethiopia
2013-2014*

- Prepared budget proposal every year
- Organized different community working camps
- Managed Team meeting and events

Campus Student committee

*University of Gondar,
Gondar, Ethiopia
2013-2014*

- Lead team building and organizational meeting
- Liaised between student and faculty and administrators