

YEABSIRA Mersha Tesfaye

Website: <https://yeabwang.github.io/>

Linkedin: [linkedin.com/in/yeabsira-tesfaye](https://www.linkedin.com/in/yeabsira-tesfaye)

Github: github.com/yeabwang

Applied AI engineer and Computer Science student with 3+ years of professional software development experience working with local and international clients. Previously led web and product development projects across e-commerce, events, and business platforms, and now focus on building AI-powered applications, LLM agents, automation workflows, and developer tools. Skilled in Python, TypeScript, Next.js, React, PostgreSQL, and modern AI stacks, with a strong ability to translate business needs into practical, user-focused solutions.

PROFESSIONAL EXPERIENCE

Software Developer — Chiropedic Mattress Ltd

Melbourne, Australia · Remote · Aug 2024 – Aug 2025

- Led a team of 2 developers upgrading, maintaining and optimizing 6 e-commerce websites across Australian retail brands.
- Improved user experience and conversion rates through website optimization, analytics integration, and A/B testing.
- Enhanced operational reliability by streamlining payment systems, strengthening security, and coordinating remote delivery across time zones.

Senior Web Designer & Developer — Yeab Future

Addis Ababa, Ethiopia · Apr 2021 – Aug 2024

- Led a team of 5 developers, managing end-to-end delivery from requirements gathering and design to deployment and maintenance.
- Built websites, e-commerce platforms, and business applications for clients including the U.S. Embassy in Ethiopia, Arifpay, Flawless Events, Tradenet USA, RND Ethiopia and Kilimanjaro Ventures.
- Collaborated directly with non-technical stakeholders to translate business needs into technical solutions while implementing analytics, payment systems, and security enhancements.

Web Designer & Developer — Enkopa Summit

Addis Ababa, Ethiopia · Apr 2023 – Aug 2024

- Contributed to an event that hosted 1,200+ guests and attracted 6,500 website users with 25,000+ page views.
- Conducted user research, information architecture, wireframing, UI design, and full-stack development of the summit platform, including online registration, ticketing, payment processing, onsite scanning, program tracking, analytics integration, and security frameworks to support a seamless event experience and operational visibility.
- Worked closely with founders and the event team, providing technical support, reports, and post-event improvements.

Co-Founder & CEO — Gofere Travels

Addis Ababa, Ethiopia · Mar 2022 – Sep 2024

- Led product direction, operations, development planning, and early business execution for a travel-booking startup focused on simplifying authentic trip discovery and booking in Ethiopia.
- Worked across product design, customer discovery, vendor coordination, technical implementation, and go-to-market planning, gaining hands-on experience in ownership, prioritization, and building software around real-world business workflows.

SELECTED PROJECTS

Rubric AI — AI-Powered Code Evaluation Platform

Link: https://github.com/yeabwang/rubric_ai

Team: **Tesfaye, Y. M.**, Mathew, S., Nguyen, N. T., Yoselia, C | Prof. Song Dandan

- Built an AI-powered code evaluation platform that assesses student repositories against instructor-defined rubrics using LLM agents and sandboxed code execution.
- Developed end-to-end workflows for rubric generation, repository evaluation, feedback reporting, class management, and asynchronous grading pipelines.
- Awarded Grand Prize, 16th National E-commerce “Innovation, Creativity & Entrepreneurship” Challenge, 2026.

Arqitect — Agentic Collaborative System-Design Workspace

Link: <https://github.com/yeabwang/arqitect>

- Built a collaborative AI-assisted workspace that transforms architecture discussions into editable system-design canvases and implementation-ready specifications.
- Implemented AI-powered architecture generation, specification creation, and collaboration workflows using Trigger.dev, Liveblocks, and React Flow.
- Developed project management, access control, and persistence systems that help teams convert unstructured technical conversations into structured, reviewable implementation artifacts.

talkt — AI Voice Interview Practice Platform

Link: <https://github.com/yeabwang/talkt>

- Built an AI-powered voice interview platform that generates custom interviews, conducts real-time conversations through voice AI, and delivers structured, evidence-backed performance reports.
- Developed an end-to-end interview workflow combining conversational interview creation, real-time Vapi voice interactions, automated transcript analysis, and AI-driven grading with detailed feedback and scoring.
- Engineered a production-ready architecture using Next.js, Prisma, Trigger.dev, and Vercel Blob with secure server-side prompt handling, background processing, multi-language support, and protected user data.

pichu — Open-Source Terminal Coding Agent

Link: <https://github.com/yeabwang/pichu>

- Built an open-source terminal coding agent with tool use, memory, session management, and interactive developer workflows.
- Designed agent orchestration capabilities including sub-agents, task delegation, MCP integrations, and context management for complex multi-step workflows.
- Implemented safety, reliability, and developer productivity features such as approvals, sandboxing, audit logging, runtime controls, and terminal-based command interfaces.

syni-cli — Persona-Driven, Schema-Validated LLM SDK

Link: https://github.com/yeabwang/syni_cli

- Contributed to Synheart AI’s open-source Python SDK and CLI for persona-driven, schema-validated LLM interactions with built-in safety controls and budget tracking.
- Developed infrastructure for controlled AI execution, including persona contracts, structured JSON outputs, safety enforcement, token constraints, and cloud/local deployment support.

CORE SKILLS

- **Applied AI & LLM Systems:** LLM APIs, agent workflows, structured outputs, prompt engineering, schema validation, human-in-the-loop review, AI evaluation, AI safety constraints, token/cost tracking, automation frameworks.
- **Software Engineering:** Python, TypeScript, JavaScript, C++, Next.js, React, FastAPI, Prisma, PostgreSQL, REST APIs, Docker, GitHub Actions, CI/CD, server-side architecture, API integration.
- **Product & Delivery:** Stakeholder discovery, technical communication, client-facing delivery, UI/UX design, workflow analysis, prototyping, deployment, iteration, team leadership, documentation.
- **Tools & Platforms:** Clerk, Liveblocks, React Flow, Trigger.dev, Vercel Blob, Vapi, OpenAI-compatible APIs, E2B sandboxes, Vercel, Render, MCP.

EDUCATION

Beijing Institute of Technology

BSc, Computer Science and Technology · Sep 2024 – Jul 2028 expected

- Beijing Municipal Government Scholarship, 2024–present.
- **Relevant coursework:** Introduction to Artificial Intelligence; Brain Science & Brain-Inspired Intelligence.
- **Focus areas:** applied AI systems, LLM agents, software engineering, continual learning, personalization, and AI safety.

Tsinghua University

Summer School for Generative AI · Jul 2025

- **Relevant coursework and lectures:** Jie Tang — The Road to AGI, Zhiyuan Liu — LLM Agents, Yuxiao Dong — LLMs and Multimodal Models, Wenguang Chen — Distributed Systems for Large Models

RESEARCH EXPERIENCE

Research Intern — Synheart AI

Oct 2025 – Mar 2026

- Co-authored the Human State Interface (HSI) framework, defining Human State Vectors for representing physiological, cognitive, and behavioral state across AI systems.
- Built emotion and stress inference pipelines using multimodal physiological datasets and contributed to affective AI model development and evaluation.

PUBLICATIONS

- Tesfaye, Y. M. (2026, May). How you say it matters: Personalizing LLM responses via dual time-scale closed-loop adaptation. <https://openreview.net/forum?id=cBuU9lkNI5>.
- Tesfaye, Y. M., & Synheart AI Team. (2026, January). Human state interface infrastructure (White paper). <https://synheart.ai/research/synheart-hsi>
- Hachelaf, M. Z., Lin, K., Yeo, J. W. J., Su, Q. H., Santosa, C. J., Li, Z., Tesfaye, Y. M., Xiao, H., Louwren, A. R., & Huang, T. K. (2025, February). AM-SDS Nexus 7 — Autonomous Martian seed deployment system. <https://doi.org/10.13140/RG.2.2.32521.61286>

ADDITIONAL PROJECT

PathoFusion – Histopathological Image Classification for Breast Cancer Diagnosis

Team: Tesfaye, Y. M., Prof. Xiangfu Zhang

- Designed and evaluated a deep learning pipeline for axillary lymph node metastasis classification in breast cancer diagnosis.
- Conducted model evaluation and experimentation under academic supervision.
- Awarded Third Prize, Qingju AI “Artificial Intelligence+” Special Competition, July 2025.

SELECTED CLIENT PORTFOLIO

Delivered or contributed to web/software projects for organizations and brands including: U.S. Embassy in Ethiopia, AFCA, 1888EC, Arifpay, Niger Data Lab, Tradenet USA, Nerd Ethiopia, Lersha Agro, Enkopa Summit, Chiropedic Mattress Factory, Sleep Republic, SleepFirm, BedInABox, EcoKids, Yinahla, Euro Truck Parts, Share ET, Hind Group, Innobiz-K, African Mosaique, AM Edit, R&D Ethiopia, Kilimanjaro Ventures, Ethiopian Cybersecurity Association, and NedPlus.

REFERENCES

LinkedIn recommendations and professional references available upon request.