

YUYUN FRANCIS BERINYUY

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SUMMARY

AI and Data Engineer with mid-level experience building full-stack and AI products that solve real business and social problems. Built an AI cost estimation platform from scratch and developed an AI health chatbot that helped serve thousands of users in underserved communities. Strong background in React.js, Node.js, Python, FastAPI, and CI/CD, with experience leading product delivery, mentoring teammates, and shipping reliable systems. Ready to apply engineering and AI experience to build high-impact solutions that improve lives.

CORE COMPETENCIES

- **AI / ML:** LangChain, Anthropic Claude API, OpenAI API, RAG, PyTorch, HuggingFace Transformers, Scikit-learn
- **Full Stack:** React.js, Next.js, React Native, Node.js, FastAPI, TypeScript, REST APIs, Python
- **Infrastructure:** Docker, Kubernetes, CI/CD (GitHub Actions), Supabase, Fly.io, Vercel, Redis, AWS
- **Leadership:** Team Management, Product Strategy, Stakeholder Communication
- **Design & Tools:** Figma, UX/UI Design, Agile/Scrum, SQLAlchemy, Alembic, Pydantic

PROFESSIONAL EXPERIENCE

Tata Consultancy Services (TCS)

Oct 2025 - Present

AI and Data Engineer

- Built an AI cost estimation platform from scratch using Next.js, FastAPI, and Supabase that helps consultants calculate the real cost of running AI across different cloud providers and LLM models.
- Worked on Prism, an internal TCS tool for SAP consultants that uses AI agents to automate requirements gathering and process documentation, cutting manual effort by 50% and helping teams start projects faster.
- Built Loom, a dashboard component kit that enables teams to quickly generate custom, on-brand client dashboards from a simple intake form, speeding up delivery and ensuring consistent quality.
- Designed and implemented a white-label AI control plane for a healthcare payer with advanced RBAC, human-in-the-loop claim adjudication, and end-to-end data lineage, resulting in faster, more accurate claim processing and enhanced compliance.

Crew Social

Jan 2025 - Present

Full Stack Software Developer

Pennsylvania, USA (Remote)

- Built and maintained the Crew mobile app end-to-end using React Native and Node.js, delivering reliable performance and fast feature turnaround.
- Implemented comprehensive test coverage and structured code reviews, reducing production bugs and improving overall code quality.
- Mentored a junior developer through hands-on training and feedback, helping them become a fully independent and productive member of the remote team ahead of schedule.
- Led and coordinated two-week development sprints in Jira, consistently delivering new features ahead of schedule and enabling the team to exceed all product milestone goals.

Check Me Ltd

Apr 2023 - Present

CEO & Founder

Kigali, Rwanda (Remote)

- Founded an AI-powered breast cancer early detection platform serving 10,000+ users in underserved communities across Sub-Saharan Africa.
- Built Nia, a women's health AI chatbot using RAG with LangChain, OpenAI, and FastAPI, delivering accurate breast health guidance through natural conversation.
- Raised over \$75,000 in funding, won the WSIS e-health prize at the ITU World Summit in Geneva, Switzerland, and received the Nebius AI Discovery Award in London, UK
- Led product strategy, clinical partnerships, and feature roadmap for an IoT-enabled ultrasound platform, enabling remote clinics to perform on-site diagnostics and increasing patient access by 40%.

MobireHab

May 2024 - Aug 2024

Full-Stack Developer Intern

- Built and improved a patient management system with React.js and Node.js, increasing user engagement by 25%.
- Implemented CI/CD pipelines that cut deployment time and reduced manual release effort by 40%.
- Partnered with designers and engineers to boost platform stability and scalability, cutting crash incidents by 30% and raising user satisfaction scores by 20%.

CAMSOL Technologies

Oct 2022 - May 2024

Software Developer - Frontend

Berlin, Germany

- Led the frontend redesign of the company website, contributing to a 30% increase in site traffic.

- Designed and ran an in-house design training program; every participant secured employment through hands-on project mentoring.

Kalio Sarl

Software Consultant

Feb 2022 - Nov 2022

Yaoundé, Cameroon

- Designed and developed a mobile app for farmers using React Native to support crop monitoring, enhancing farmers' ability to track crop health and improve yield.
- Integrated IoT features and image processing tools to help analyze crop health, enabling farmers to make informed decisions and improve crop management.

EDUCATION

Carnegie Mellon University

MSc, Information Technology

Aug 2023 - May 2025

Kigali, Rwanda (CMU-Africa)

- **Achievements:** Founded Check Me Ltd, a Health Tech Startup and raised over \$75k and won the WSIS e-health prize at the ITU World Summit in Geneva.

ICT University, Cameroon

BSc, Software Engineering

Oct 2018 - Jul 2022

Yaoundé, Cameroon

TECHNICAL PROJECTS

AI Breast Cancer Detection Platform

Jan 2023 - Present

Check Me

- Trained an ultrasound image analysis model and built Nia, a women's health chatbot using RAG with LangChain and OpenAI.
- Designed a FastAPI async inference backend optimized for low-bandwidth remote clinic environments.

Multilingual ASR: Kinyarwanda – English

Jan 2025 - May 2025

- Built an audio transcription and translation system using PyTorch and HuggingFace Transformers, achieving 82–90% accuracy.
- Deployed as a FastAPI service with Redis caching and async processing at 3× real-time throughput.