# Hamza Kyamanywa

# Senior Fullstack Software Engineer

React Native • Node.js • MongoDB • AWS • AI/LLM

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# **Professional Summary**

Senior Fullstack Engineer with 4+ years building scalable B2C mobile and web applications at a leading Korean EdTech company (50K+ MAU). Expertise in React Native, Node.js, MongoDB, and AWS with proven track record delivering high-impact features that increased user retention by 40% and drove 25% premium subscription growth. Fluent in Korean (TOPIK 5) and English, with strong AI/LLM engineering capabilities. Award-winning engineer (2x Hero Awards) with rapid promotion from Level 2 to Level 4 in 18 months.

#### **Technical Skills**

Mobile & Frontend: React Native (iOS/Android), ReactJS, Next.js 15, React 19, TailwindCSS, Lexical Editor, EditorJS

Backend & APIs: (§) Node.js, 🔑 FastAPI, Django, Express.js, RESTful APIs, WebSocket, Socket.io

Databases: NongoDB, PostgreSQL, MySQL, Redis, Firebase, Supabase, Pinecone (Vector DB)

Cloud & DevOps: aws AWS (Lambda, ECS, S3, EC2, EventBridge), Docker, GCP, CI/CD, Serverless Architecture

Cross-Platform: React Native, Electron, Chrome Extensions (Manifest V3), PWA, Desktop Apps

AI/ML: LangChain, LangGraph, OpenAI API, Whisper, RAG, Vector Embeddings, Prompt Engineering

Languages: 🐼 Korean (Fluent - TOPIK 5), 🚍 English (TOEFL 111, IELTS 7.5), 🔤 Luganda (Native)

Programming: Python, Js JavaScript / Ts TypeScript, C++, SQL

#### PROFESSIONAL EXPERIENCE

## **Technical Founder**

# HoverNotes (AI Video Note-Taking SaaS) | Remote, United States | Jul 2025 - Present

- Founded and led technical development of **privacy-first AI video note-taking platform** and grew it to over from \$0 to \$1100 MRR in 4 months
- Full-Stack Architecture: Built three-tier system (Chrome Extension + Next.js 15 Web App + Python AI Backend) with React 19, TypeScript, FastAPI, LangGraph agents, and Docker
- Privacy Innovation: Implemented local-first architecture with direct Obsidian vault integration and zero cloud storage
- Universal Video Compatibility: Engineered advanced video detection working across YouTube, Udemy, LinkedIn Learning, Bilibili, and all major platforms
- AI Integration: Built multi-modal processing with real-time streaming note generation using LangGraph reasoning agents
- Global Reach: Developed 45+ language localization with culturally-adapted AI note generation and phased market rollout strategy
- **Tech Stack:** Next.js 15, React 19, TypeScript, PostgreSQL, Drizzle ORM, Stripe, Supabase, Tailwind CSS, Docker, Python, FastAPI, Docker, Langchain, AWS (EC2, Route53, S3, Lambda)

# Senior Full Stack Engineer (Consultancy -> Freelance)

## GoGymi (EdTech SaaS Platform) | Remote, Switzerland | Jan 2025 - Sep 2025

- Led full-stack development of TexTutor, an AI-powered educational SaaS platform for Swiss teachers and students
- Full-Stack Architecture: Built complete platform using Next.js 15, React 19, PostgreSQL, TypeScript with comprehensive responsive design
- Billing & Monetization: Implemented Stripe subscription system with multi-tier plans, free trials, and automated workflows
- Multi-Language Platform: Delivered internationalization supporting 5 languages (EN/DE/ES/FR/IT) with localized billing
- **Authentication & Security:** Built complete user management with email verification, password reset, and secure session handling
- Rich Features: Implemented Lexical editor with collaborative features, LiveBlocks integration, and PDF export capabilities
- Tech Stack: Next.js 15, React 19, TypeScript, PostgreSQL, Drizzle ORM, Stripe, Supabase, Tailwind CSS, Docker

# AI Engineer & Team Lead (Level 4)

## Bebridge Inc. (Slid - EdTech Platform, 50K+ MAU) | Seoul, South Korea | Jan 2024 - Jun 2025

- Led AI innovation transforming Slid into industry-leading AI-powered educational platform with 50,000+ monthly active
  users
- **Mobile App Development:** Spearheaded **React Native iOS/Android app launch** with server-side video processing, increasing user base by 21% and mobile retention by 40%
- AI Auto-Notes Pioneer: Built end-to-end LLM/Whisper-based auto-notes from video, increasing videos opened by 12% and overall retention by 25%
- Cost Optimization: Achieved 60% API cost reduction through intelligent buffering and multi-provider optimization
- Server-Side Video Processing: Developed FFmpeg-based screenshot solution on AWS Lambda overcoming mobile platform limitations
- AI Agent Systems: Built LangGraph multi-agent pipeline for transcript correction with custom reasoning tools
- Backend Innovation: Reverse-engineered YouTube video delivery for direct URL access, enabling mobile processing at scale
- Tech Stack: React Native, Python, FastAPI, AWS Lambda, EventBridge, S3, FFmpeg, LangGraph, OpenAI/Whisper APIs

# Senior Software Engineer (Level 3) - R&D Team

# Bebridge Inc. | Seoul, South Korea | Jun 2023 - Dec 2023

- AI Sliddy Chat (Industry First): Built AI chat for notes before Notion AI, using LangChain, Pinecone vector DB, and streaming responses
- Semantic Search: Implemented RAG-based search increasing session duration by 25%
- LLM Video Summarization: Built scalable event-driven cloud engine achieving 1,500 MAU and 25% weekly retention
- Cost Reduction: Reduced summarization costs by 40% through result caching and API optimization
- Performance: Improved summarization speed by 66% via parallel processing and lazy evaluation
- Universal Export: Built multi-format export (Word, PDF, Markdown, Notion) with 96% accuracy, reducing support by 75%
- Open Source: Contributed to LangChain, Vercel AI SDK, and Quivr
- Recognition: Awarded Hero Award 2023, promoted to Level 4

# Full Stack Engineer (Level 2)

# Bebridge Inc. | Seoul, South Korea | Jun 2022 - May 2023

- **Real-Time Transcription:** Pioneered WebRTC → Socket.io → Google Cloud Speech STT, increasing premium subscriptions by 51%
- Stack Overflow Impact: Solution helped 5,000+ developers with WebRTC/STT implementation
- Cost Optimization: Achieved 90% transcription cost reduction through provider evolution (Whisper  $\rightarrow$  Google  $\rightarrow$  Groq)
- **Authentication System:** Designed cross-platform auth using **AWS Cognito** for Web, Chrome Extension, Mobile (React Native), and Desktop
- **Payment Integration:** Built **Stripe + Payple** multi-gateway system with 35% checkout improvement and 98%+ success rate
- Cross-Platform Development: React Web App, React Native Mobile, Electron Desktop, Chrome Extension (200+commits)
- Performance: Reduced load time by 57% through lazy loading and optimization
- Open Source: Contributed to EditorJS and Redux Toolkit
- **Recognition:** Awarded Hero Award 2022, promoted to Level 3

## **EDUCATION**

# **Bachelor of Science in Electrical and Electronics Engineering**

# Korea University, Seoul | March 2019 - February 2023 | GPA: 4.02/4.5 (Magna Cum Laude)

- **Publication:** "Responsible Music Genre Classification using Interpretable Model-agnostic Visual Explainers" in Springer Nature Computer Science Journal (4th ICDSA 2023)
- Scholarships: Global Korea Scholarship (2018-2023), Ugandan Government Scholarship (2017)

## **AWARDS & RECOGNITION**

- Bebridge-Slid Hero Award (2 consecutive years: 2022, 2023) Top performer company-wide
- Rapid Promotion: Level  $2 \rightarrow$  Level  $3(2022) \rightarrow$  Level 4(2023) in 18 months
- Korea University Academic Excellence Award (July 2020)
- Korea University Dean's List (3 semesters: 2019-2020)

# **OPEN SOURCE CONTRIBUTIONS**

- LangChain (118K 🔀 ) Framework for LLM applications
- Editor.JS (25.1K ☆ ) Block-style text editor
- **Redux Toolkit** (11.1K 🙀 ) Official Redux toolset
- Vercel AI SDK (18.7K 💢 ) AI-powered streaming UIs
- **MemGPT** (18.9K 💢 ) LLM agents with long-term memory
- **Pytube** (13.5K 🙀 ) YouTube video downloading library
- Vexa (1.5K+ 🙀 ) Real-time multilingual meeting transcription and streaming bots
- Agno (19K+ 🙀 ) Multi-agent AI framework, runtime and control plane
- FastAPI (84K 💢 ) High-performance Python API framework

## **REFERENCES**

# Junghyun Park

# CEO & Founder, BEBRIDGE INC.

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Direct supervisor during tenure at Bebridge Inc. (Slid platform)

## **Beelee Chua**

## Associate Professor, Korea University

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Academic supervisor and research mentor