

# Valentino Hansen

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## EDUCATION

### • University of Sydney

Bachelor of Advanced Computing in Computer Science & Software Development

Present - May 2027

Sydney, Australia

- WAM: Distinction

- Relevant Coursework: Data Structures & Algorithms, Web Development, Computer Architecture, System Programming, Linear Algebra, Calculus, AI, OOP, Design Pattern, System Design, Usability & Security

## EXPERIENCE

### • AmbisiusLab [🌐]

Software Engineering Intern

Dec 2024 - Feb 2025

Jakarta, Indonesia

- Enhanced LLM query accuracy by 50% by co-developing a multi-agent RAG pipeline using AI SDK, LangGraph and OpenAI, retrieving context from a QDrant vector store with advanced partitioning.
- Accelerated project delivery by 25% by establishing a full CI/CD pipeline using GitHub Actions, automating the testing and deployment of a full-stack application.
- Increased performance by 15-20% from migrating current codebase from REST APIs to Fastify.
- Implemented comprehensive end-to-end testing for the multi-agent system using the Jest framework, ensuring robustness and reliability of the AI-driven features.
- Developed and deployed a responsive, full-stack inventory dashboard using Next.js and NestJS, enabling real-time data visualization using TailwindCSS, Framer Motion and shadcn/ui.

## PROJECTS

### • Job Application Auditor

Nov 2025

Next.js, NestJS, Prisma, Firebase, Google Cloud Platform, AI SDK, LiveKit API, AWS, NLP Toolkit



- Reduced average interview feedback delivery time from 5 minutes to under 30 seconds by implementing asynchronous AWS pipeline (S3, SQS, SNS and Lambda) for audio transcription and LLM analysis.
- Improved contextual understanding of LLM by 40% by implementing a multi-agent RAG pipeline using the triage agent orchestrator, allowing natural language interaction with codebases.
- Architected and deployed a highly scalable full-stack application on Google Cloud Platform, utilizing REST API endpoints for real-time WebSocket communication for AI voice agents via LiveKit.

### • AI Recipe Curation System [🌐]

Sep 2025

Next.js, Vercel AI SDK, Redis, Eva, Perplexity, OpenAI, Google AI SDK



- Built a scalable REST API back-end managing user preferences, model orchestration (OpenAI/Gemini), and real-time recipe generation with integrated web search for latest trends and nutritional data.
- Reduced API costs by 40% and improved response latency by 60% by implementing a Redis caching layer for frequently accessed recipes and user query results.

### • AI Image Transformation SaaS [🌐]

Nov 2024

Next.js, TypeScript, Cloudinary API, Clerk SDK, Stripe, MongoDB, React Hook Form, Vercel



- Architected full-stack SaaS platform on Next.js with TypeScript, integrating Cloudinary AI for ML-powered image transformations and MongoDB for data persistence across 50+ components.
- Designed scalable payment system using Stripe Checkout API and webhooks, automating token-based monetization across 3 subscription tiers with event-driven architecture and real-time synchronization.
- Secure application with Clerk authentication SDK that implements OAuth 2.0 flows, middleware route protection, and automated user provisioning, enabling access control of role-based features.

## TECHNICAL SKILLS

### • Programming Languages:

TypeScript, JavaScript, Python, C++, C, Java, R, HTML/CSS, SQL, Bash

### • Frameworks & Tools:

Next.js, React.js, NestJS, Node.js, AI SDK, LangChain, Jenkins, Django, FastAPI, Expo, React Native, GCP, AWS, Vector Store, PostgreSQL, MongoDB, Redis, Vercel, Docker, Git/GitHub

## CERTIFICATIONS

### • Building AI Voice Agents for Production using LiveKit

DeepLearning.AI, 2025

### • NestJS Mastery: Build & Deploy a Production-Ready API

Udemy, 2025

### • Solution Presenter, Harvard Health Systems Innovation Hackathon

Sydney, Apr 2025