PEACE AMANI MWENDE KIMATHI

COMPUTER SCIENCE (ARTIFICIAL INTELLIGENCE) STUDENT

Kuala Lumpur, Malaysia | amanithomas65@gmail.com | linkedin.com/in/peace-kimathi-2461a637b | https://github.com/amanikimathi

PROFESSIONAL SUMMARY

A Computer Science (Artificial Intelligence) undergraduate at Asia Pacific University with foundational experience in Python, object-oriented programming, databases, networking and software development. Experienced in telecommunications, fintech, research support and digital communication through internships at Safaricom, Red-Ant International and the Centre for Analytical Research and Development. Interested in developing practical AI and software solutions while strengthening technical and problem-solving skills.

EDUCATION

Bachelor of Computer Science (Hons) (Artificial Intelligence)
Asia Pacific University (APU), Kuala Lumpur, Malaysia **2025 - 2028**
CGPA: 3.72

- Relevant coursework: Python Programming, Object-Oriented Programming, Database Systems, Computer Networks, Artificial Intelligence, Data Analysis, Data Structures and Algorithms.
- Developed strong communication skills, teamwork, and time- management skills.

High School Certificate
Light International School (LIS), Nairobi Kenya. **2020 - 2024**

- Pursued my O-levels and A-levels.
- Elected Class Representative, representing student concerns and supporting class organization.
- Served as Cabinet Secretary for the Mentorship Girls' Program, contributing to planning, coordination and student development initiatives.
- Volunteered in community service initiatives.

TECHNICAL SKILLS

Programming: Python, SQL, C#, HTML, CSS, Java, R
Tools & Platforms: GitHub, VS Code, Cisco Packet Tracer, VirtualBox, NetBeans, Canva,
Concepts: Object-Oriented Programming, Data Structures and Algorithms, Database Design, IP Addressing, Routing, Machine Learning Fundamentals, AI fundamentals

PROJECTS

Lecture Lens -AI Study Companion
Live demo | GitHub
[Python, Fast API, Next.js, TypeScript, PostgreSQL, SQL Alchemy, Google Gemini API, Chroma DB, RAG, Clerk]

- Built a full-stack web application that generates summaries, flashcards, multiple-choice questions, and essay questions from lecture PDFs using Google's Gemini API and prompt engineering
- Implemented Retrieval-Augmented Generation (RAG): PDF text is chunked, converted into vector embeddings, and stored in Chroma DB, powering a chat feature that answers questions strictly from the uploaded document — reducing hallucination by design.
- Designed a relational database schema (PostgreSQL + SQL Alchemy) to persist users, documents, and generated study materials
- Built a Fast API backend with 7 REST endpoints and a Next.js/TypeScript frontend with interactive UI (flip flashcards, real-time quiz feedback); integrated Clerk for authentication.
- Optimized API usage by batching embedding requests and parallelizing independent Gemini calls, reducing response time and API overhead.
- Deployed live: backend on Render, frontend on Vercel.

Student Spending Predictor — Machine Learning Project
[Python, pandas, scikit-learn, Fast API, joblib, Google Colab]

- Built a regression model predicting student discretionary spending from income, demographics, and academic year, using a 1,000-row dataset

- Performed data cleaning and feature engineering, including one-hot encoding categorical variables and identifying and correcting a data leakage issue in initial feature selection
- Trained and evaluated Linear Regression and Random Forest models using an 80/20 train-test split; honestly assessed and reported that available features showed limited predictive power (R^2 near zero)
- Deployed the trained model as a live REST API using FastAPI, enabling real-time predictions from user input

AI Trip Planner + Group Expense Splitter
Live demo | GitHub
[Python, FastAPI, PostgreSQL, SQLAlchemy, Next.js, TypeScript, Tailwind CSS, Groq API, Clerk]

- Built a full-stack web app that generates day-by-day travel itineraries from destination, dates, budget, interests and trip-personality tags, using prompt-engineered LLM calls that return structured JSON
- Designed a relational PostgreSQL schema (SQLAlchemy) for trips, members, expenses and per-person splits, supporting both solo and group trips
- Implemented group expense splitting in integer cents so shares always sum exactly, with a greedy settle-up algorithm that resolves balances in at most n-1 payments
- Built 5 REST endpoints in FastAPI with server-side validation (date ranges, 14-day trip cap, membership checks) and retry with exponential backoff for LLM calls; added Clerk authentication to the Next.js frontend
- Deployed live: FastAPI on Render, Next.js on Vercel, PostgreSQL on Neon

EXPERIENCE

Research & Digital Media Assistant **Sep 2024 - Jun 2025**
Centre for Analytical in Research and Development

- Transcribed, organized and reviewed research data to support reporting and project activities.
- Helped with data collection.
- Designed campaign graphics, managed social media content and supported audience engagement while maintaining brand consistency.

Intern **Jun 2024 - Jul 2024**
Safaricom

- Completed a rotational internship across M-Pesa, Customer Care and Business Intelligence departments.
- Gained exposure to fintech operations, customer-support processes and data-informed decision-making.

Intern **Jun 2023 - Jul 2023**
Red-Ant International

- Explored fintech and digital-solutions operations while developing professional communication and workplace responsibility.
- Practised Cisco networking fundamentals and supported LinkedIn profile creation and personal branding activities.

LEADERSHIP & ACTIVITIES

- **Assistant Team Leader, Merdeka Fiesta 2025:** Coordinated activities, supported team operations and helped keep assigned tasks on schedule.
- **Design, Marketing & Social Media, APU Kenyan Community:** Created promotional visuals and supported digital communication for community activities.
- **Participated in the ML Empowerment Build Challenge 2.0 by Devpost**
- **Participated in an Applied AI Workshop at Asia Pacific University**

CERTIFICATIONS & LANGUAGES

Languages: English (Fluent) | Swahili (Native/Fluent)