Felix Lau Pangestu

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EDUCATION

Hong Kong Baptist University **Sep 2022 - Jun 2026**

Bachelor of Science (Hons) in Business Computing & Data Analytics | First Class Honors **Cumulative GPA: 3.6/4.0**

- Representative of the Senate (Science Faculty), Student Ambassador, Cultural Ambassador, Peer Mentor, Course Tutor
- Lee Siu Lun First-Gen University Student Scholarship, Outstanding Student Scholarship, HKROA, HKBU Global Vision Award

Nanyang Technological University, Fall Semester Exchange (Aug 2024 – Dec 2024), Fung Scholarship

WORK EXPERIENCE

Digital & IT Intern, **Cathay Pacific** **Jul 2025 – Aug 2025**

- Built full-stack cargo compliance MVP using React/Flask, demonstrating automation potential for 40K+ monthly packets and identifying HKD 10M+ risk mitigation opportunity
- Implemented database indexing strategies and query optimization techniques, reducing data processing time from 2+ hours to 6 minutes for compliance batch jobs
- Assisted with API standardization projects across 6 cross-functional teams and partners including a global investment bank, leading ride-sharing company, and multinational oil corporation
- Developed sequence/flow diagrams and endpoint specifications adopted by 6 microservices, reducing integration complexity.
- Implemented automated rostering algorithm for multi-team on-call scheduling; decreased scheduling conflicts by 60% and reduced manual assignment overhead by 80% across 3 engineering teams
- Managed hackathon logistics for 600+ participants, coordinating stakeholders and maintaining project documentation

Software Engineer Intern, **Wizpresso** **Jun 2024 – Aug 2024**

- Refactored core services from SvelteKit/Prisma to ASP.NET Core Web API, reducing API latency by 22% (1.6s→1.24s) through async I/O, DbContext tuning, and in-memory caching; delivered improvements to 1,500+ daily users
- Implemented OAuth 2.0/OIDC with JWT SSO for 15k+ users; enforced secure standards (PKCE, key rotation), passing external security audits with no critical findings
- Led zero-downtime migration from SQL Server to Amazon RDS using AWS DMS with CDC; ensured <0.05% data variance and automated reconciliation before switchover

Research Assistant, **Hong Kong Baptist University** **Jan 2024 – Aug 2024**

- Adapted a 7B LLM for financial sentiment and NER using PEFT–LoRA (4-bit QLoRA); achieved higher F1 scores than BERT with >95% fewer trainable parameters and 60–70% lower compute use
- Integrated fine-tuned LLM into LangChain pipeline for large-scale analysis of 20,000+ earnings call transcripts

Software Engineer Intern, **Admazes** **Dec 2023 – Jan 2024**

- Built RAG pipeline using LangChain and HuggingFace embeddings with vector similarity search for 10K+ documents
- Improved QA accuracy by 25% and reduced hallucinations by 60% through semantic chunking and citation validation

PROJECTS & LEADERSHIP EXPERIENCE

Real-Time Fraud Detection System, Python (Flask/scikit-learn/pandas), Apache Kafka/Zookeeper, Redis, PostgreSQL, Docker | **GitHub**

- Architected real-time fraud detection system achieving ~95% prediction accuracy on imbalanced datasets by implementing ensemble ML models (Isolation Forest + Logistic Regression + XGBoost) with automated anomaly detection capabilities
- Built distributed streaming architecture supporting 1,000-4,000 requests/second throughput for scalable transaction analysis

Navigation and Tourism App, NextJS, Python (FastAPI BeautifulSoup4), MongoDB, Docker, Google API, Cohere API| **GitHub**

- Engineered location intelligence system processing APIs and automated web scraping pipelines to extract real-time POI data, business hours, and pricing information for contextual travel recommendations and navigation.
- Processed unstructured voice/text through multi-model AI pipeline achieving 95%+ accuracy in intent recognition at scale

Founder & Lead Developer, **Read the Vision**

- Building a computer vision solution to transcribe hand signals and improve communication between deaf/mute communities and the public; admitted to the HKSTP Ideation Programme (up to HKD 100,000 funding; initial HKD 10,000 secured).

Student Ambassador, **Amazon Web Services**

- Liaison between AWS and the student community, organizing events(AWS Summit 2025) and promoting AWS resources

SKILLS

Languages & Frameworks: Java, Python, C#, JavaScript, TypeScript, SQL, HTML,CSS, React, SvelteKit, Next.js, ASP.NET Core, Spring Boot, Node.js, Express.js, Flask, Material UI, Tailwind CSS, Streamlit
Data & Analytics: PostgreSQL, MySQL, MongoDB, Pandas, Matplotlib, Seaborn, LangChain, Power BI, Tableau
Cloud & Development Tools: AWS (RDS, DMS, S3), GCP (Firebase), Docker, Apache Kafka, Redis, Unity, Jira, Confluence, Kubernetes

INTERESTS

Powerlifting (1058lbs Total), Rugby (Varsity Team), Poker, R&B Music, *Remembrance of Earth's Past* by Liu Cixin