

# MICHAEL BLANCHETTE

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## Education

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**The Hong Kong University of Science and Technology**

Sep 2020 – Jun 2025 (Expected)

*BEng Computer Science & BBA Marketing*

*Dual Degree Program in Technology & Management (DDP)*

**CFA Institute**

Exam Date: Aug 2024

*Level I Candidate*

## Work Experience

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**Pivot Biomedical Engineering Limited**

Jul 2024 – Aug 2024

*Machine Learning Developer Intern*

*Hong Kong, China*

- Developed RNN and DCNN-based machine learning models using Tensorflow to predict knee joint angles using muscle signals for real-time control of lower limb exoskeletons and prosthetics.
- Prototyped an AI-powered medical diagnosis chatbot integrating MongoDB, Llama 3.1, and Retrieval-Augmented Generation to streamline medical consultations and provide symptom-based diagnoses through semantic search.

**Deloitte**

Jun 2023 – Aug 2023

*Consulting Intern - Deloitte Digital*

*Hong Kong, China*

- Optimized ServiceNow workflows to develop strategic portfolios and management dashboards for HR personnel, employees, and customers of 4 large corporations.
- Supervised the quality of Chinese-English translations for ServiceNow dashboards by translating an average of 200 Excel cells of notifications per day, ensuring high-quality cross-cultural organizational communications.
- Produced concise, real-time meeting minutes distilling key action points and agreements between 2 to 5 stakeholders.

## Project Experience

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**MultiModal AI Assistant: A GPT-4o Alternative**

June 2024 – Present

*Developer*

*Hong Kong, China*

- Engineering a custom AI assistant leveraging Llama 3.1 for communication, Gemini Flash 1.5 for screen and camera computer vision, and Azure to generate lifelike audio outputs to simulate natural conversations. This project was motivated by the fact that OpenAI isn't available in Hong Kong.
- Facilitating my language learning in Thai, Mandarin, Cantonese, and Spanish by developing a polyglot system capable of communication in 100+ languages with 400+ realistic voice options.

**AI Algorithmic Trading Bot**

Dec 2023 – Feb 2024

*Developer*

*Hong Kong, China*

- Leveraged Alpaca and Lumibot library for basic algorithmic trading through YouTube tutorials and documentation.
- Backtested strategies using sentiment analysis of historical news headlines using PyTorch and Hugging Face models.

**HKUST Corporate Consulting Project Sponsored by JPMorgan Chase & Co**

Sep 2023 – Jan 2024

*ETF Trading Student Consultant*

*Hong Kong, China*

- Designed a Global ETF Sales Dashboard to aggregate trends from news and social media for JP Morgan Asset Management's ETF sales team. Achieved 1st place in the competition. | [Article 1](#) | [Article 2](#)
- Developed an ETF filtering tool leveraging Llama 2 and MongoDB to accelerate ETF identification for JPM salespeople through RAG semantic search, reducing the time needed to pinpoint promising ETFs for their clients by 70%.
- Presented a proof of concept of a customer profiling tool by integrating CRM data from Salesforce, financial news, client meeting logs, and Hugging Face models to dynamically generate 2 to 5 ETF recommendations per month.

**HKUST Corporate Prototyping Project**

Jun 2023 – Aug 2023

*Fixed Income Student Analyst / Full-stack Developer*

*Hong Kong, China*

- Created a yearly bond pricing and credit spread migration prediction dashboard for 2 corporate banking and fixed-income related sponsors. Led mainly front-end development and achieved 2nd place in the competition. | [Article](#)
- Built dashboard on Next.js and Google Cloud. Sourced data from Eikon Terminal and Yahoo Finance for machine learning models and identified 62 features used to predict yearly credit rating migrations with 79.71% back-tested accuracy.

## Additional Information

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**Languages:** English (Native), Thai (Fluent), Mandarin (Studying), Cantonese (Studying), Spanish (Studying)

**Technical:** Python, Java, C, C++, HTML, CSS, JavaScript, React, Next.js, Git, MongoDB, Keras, Tensorflow, PyTorch

**Awards/Scholarships:** HKUST Full Tuition Scholarship + Allowance (one-off), ESF Chairman's Award for Excellence, Discovery College Academic Scholarship, Venture Scout Award, Chief Scout Award, Taekwondo Dan 2 Black Belt

**Hobbies:** HKUST Volleyball Society, Scouts, Guitar, Gym, Hiking, Camping, Private Tutoring