

# Cheung Ka Fai, Cyrus

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## EDUCATION

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### The University of Hong Kong

Sep 2019 – Aug 2023

*Bachelor of Arts and Science (Applied AI)*

*CGPA 3.38*

- Bronze award recipient in the EEG & AI competition hosted by the Faculty of Education
- Explored advanced topics in machine learning, including deep learning architectures and model selection methods
- Proficient in implementing various machine learning algorithms using Python with PyTorch

## EXPERIENCE

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### Castco Testing Centre Limited

Sep 2023 – Present

*AI Programmer*

- Developed PyQt tool to enhance document handling efficiency by 50% using Google Cloud Platform services
- Created a Jetpack Compose smartwatch app with real-time heart rate detection and location services for clients in the construction industry
- Collaborated as a member of a 6-person team to develop item detection software capable of detecting and matching 50 items in under 3 seconds

### PONS.ai

May 2022 – Aug 2022

*AI Engineer Intern*

- Conducted research on state-of-the-art generative AI models and techniques for image style transfer
- Optimized the AI pipeline by incorporating traditional algorithms and neural networks, resulting in a 2/3 reduction in inference time
- Contributed to the entire development cycle, including data collection, image preprocessing, and experimentation with different approaches using StyleGAN

## PROJECTS

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### Lingua Ladder | *Flutter, AWS, MySQL, HTTP*

Feb 2024 – Present

- Developed and deployed a cross-platform word game using Flutter, accessible on both Web and Google Play Store
- Implemented daily puzzle updates, with play records connected to AWS DynamoDB for efficient data management
- Enhanced user experience by creating a responsive UI and incorporating smooth animations
- Actively engaged with user feedback and community input to drive continuous improvement and enhance gameplay experience

### AI Phone Agent | *Python, Twilio, OpenAI, TTS, LangChain, Flask*

Jan 2023 – May 2023

- Developed an AI phone answering agent utilizing Natural Language Processing (NLP) techniques and Large Language Model (LLM)
- Capable of answering user queries and engaging in dynamic conversations, while ensuring seamless transcription and support for human-like voices in multiple languages
- Accelerated information retrieval and chat generation time to less than a second
- Effectively regulate the agent's behaviors and ensure up-to-date and accurate information delivery by designing an optimal prompt

### Improving training algorithms | *Research, Python, Pytorch*

Sep 2022 – May 2023

- Researched on novel optimization ideas to improve the generalization ability of Adam-like optimizers
- Conducted extensive reviews of the latest improvements and their theoretical foundations in computer vision, which inspired our original improvements
- Carried out more than 100 experiments on various CNN architectures and optimizers to demonstrate the faster convergence and improved generalization ability of our optimizer

## TECHNICAL SKILLS

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**Languages:** Python, Kotlin, Dart

**Frameworks:** Flutter, Jetpack Compose, Pytorch, PyQt

**Developer Tools:** Git, Amazon Web Services, Google Cloud Platform, Twilio, CloudFlare

**Libraries:** LangChain, NumPy, Matplotlib, Pandas