

# CHAN YAT FU JACKY

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## Education

### The University of Hong Kong

Sept 2019 – Now

BEng in Computer Engineering

CGPA 2.51

- 2022-2023 Year GPA: 3.85 (12 courses)
- 2023-2024 Semester 1 GPA: 3.57
- Winner (Top 11 out of 136 projects) – Final Year Project Poster Competition
- Finalist (Top 6) – Generative AI Hackathon for Social Good
- A+ in Operating Systems, Digital System Design, Probabilistic Systems Analysis

### Buddhist Sin Tak College

Hong Kong Diploma of Secondary Education Examination

- DSE: 5\* in English Speaking, 5 in English Writing
- IELTS (2019): 8.5 in Reading, 7.5 in Listening

## Work Experience

### Software Developer – Novbee

June 2023 – January 2024

Part-time Software Developer

August 2023 – January 2024

- Developed and maintained a dynamic website leveraging **Next.js**, **FastAPI**, **PostgreSQL**, and **GraphQL**.
- Conceived and executed the backend infrastructure and database schema for the company.

Software Developer Intern

June 2023 – August 2023

- Engineered a Singing Voice Synthesis model utilizing **PyTorch**.
- Developed a user-friendly **React** website enhancing the company's digital presence.

### Digital Marketing and Data Analytics Intern – Homie Living

May 2022 – August 2022

- Enhanced the open and click rates of email campaigns by 22% and 17% respectively.
- Optimized SEO strategy leading to **top 3 Google search rankings** for various keywords (4 ranked first, 4 ranked second, 2 ranked third).
- Devised a marketing campaign reaching thousands of audience members, resulting in daily sales figures exceeding \$100K.

## Individual Projects

### React MIDI Editor: A versatile and customizable MIDI editor library.

[Source Code](#)

- Implemented a practical **singing voice synthesizer** using this library as an illustration.
- Incorporated vital features such as **clipboard**, **undo/redo**, and **import/export**, along with lyric support for augmented functionality.
- Designed to be responsive and **mobile-friendly**, optimized to support rapid update of 1000+ notes at 60fps.
- Facilitates customization of styles and behaviors, aligning with user preferences.

### Stay Hydrated: An interactive console-based application for tracking water consumption.

[Source Code](#)

- **GUI**: Crafted using React and Ink    **Database**: Utilized LokiJS for database management
- Configured to **run in the background**, estimates user's water intake and issues timely **notification reminders**.
- Embodied a **modern GUI** influenced by page routing, providing an improved UX while ensuring that the commands remain **easily accessible**.

### ICMS: A comprehensive course management dashboard.

[Source Code](#)

- Integrated a **facial recognition login component** for enhanced security.
- Delivers real-time course schedule and information depending on user's context and timing.
- Augmented interaction by enabling users to forward course-related information to their personal email accounts.

### MuseDecode: An FPGA-based musical signal decoder.

- Conceived and implemented an audio signal to text decoder using Vivado and FPGA.
- Supports decoding of complex waveforms with a **high tolerance for noise** (SNR 12dB).
- Allows for **precise detection across a vast frequency spectrum** ranging from 400 - 5000 Hz.

## Technical Skills

**Language** TypeScript/JavaScript, Python, Java

**Backend** Express.js, FastAPI, Node.js

**Other Technologies** PyTorch, Docker, GraphQL

**Frontend** Next.js, React, Solid.js

**Cloud & Databases** AWS, Azure, SQL, MongoDB