Joshua Chung

Student Software Developer

Career Objective

I'm interested and want to be involved in backend development. I have a particular interest in machine learning.

I love learning about how systems work - tinkering and integrating them to create a solution for problems. I particularly enjoy learning about computers, their hardware, software, and how they integrate together.

Skills Summary

Self-Development

I love to learn, and I like to having more tools available to tackle assignments and projects. I frequently engage in private study, attending industry workshops/conferences and building skills through personal projects.

As part of my self-development, I have been managing a homelab and experimenting with virtualised application containers.

Problem Solving

I am a curious logical thinker. When I encounter a problem, I like to root cause the issue and find possible solutions. These processes have been helpful in my studies and in my spare time when I debug and fix problems in my homelab.

Time Management

I try my utmost to allocate my time and resources efficiently, so that I can meet my deadlines and manage multiple assignments simultaneously.

I aim to ensure that tasks and projects are completed on time without inconveniencing my team. This has helped previously in my university experience where I had to split my time between four courses, which included contributing to a team-based project.

Analytical Thinking

I commonly break down complex issues into manageable components. This allows me to find patterns and connections that might otherwise be overlooked. This in turn enables me to make well-informed decisions in tackling complex and multi-faceted problems.

Education

University of Auckland

B.Sci. Computer Science Major (End Sep 2024)

Nvidia Deep Learning Institute

Fundamentals of Deep Learning Certificate (Feb 2023) <u>https://keshuac.com/extlink/ncert1</u>

Fundamentals of Accelerated Computing with CUDA Python (Sep 2024) https://keshuac.com/extlink/ncert2

Technical Skills

Github: github.com/jchu634

Python

- I have experience writing RESTful APIs using Python Frameworks (Flask, FastAPI).
 - Example: CodeCritters (<u>https://crittersleuthbackend.keshuac.com/docs</u>)
 - This app's api provides an interface to get inference results from a machine-learning model from a self-hosted backend server.
- Additionally, I utilise Python extensively for scripting to partially or fully automate tasks (e.g., file name processing, batch graph plotting, etc.).

HTMI+JS

- Learned how to use WebRTC and workers when developing a GIF recording functionality for a web app
 - <u>https://github.com/jchu634/loopy-desktop</u>
- Learned how to use JS to interface with a C# RESTful API by developing a full-stack web chess game in a University assignment project.

Experience

More Projects and details at portfolio.keshuac.com/projects

Codecritters: Capstone project at the University of Auckland

- Worked in a team and helped develop an RESTFul API serving machine learning models, packaging scripts for Windows and Ubuntu, and created an android app for a insect identifying machine learning application in a team for Landcare Research.
 - Website: <u>https://go.keshuac.com/codecritters</u>
 - Repository: <u>https://go.keshuac.com/codecritters</u>
 - Repository (Android App): https://go.keshuac.com/codecrittersflutter
- Technologies: Python, FastAPI, TensorFlow, PyTorch, SQLite, InnoSetup, Flutter.

Fakman: An Unity Pacman clone.

- Created an playable Pacman clone from scratch in Unity, with webGL and desktop builds.
- Added a feature of an option to capture the screen and save it as a GIF.
 - Playable Website: <u>https://portfolio.keshuac.com/projects/games/Fakman</u>
 - Repository: <u>https://github.com/jchu634/Fakman</u>
- Technologies: Unity, C#

Loopy-Desktop: An Electron wrapper for a Open Source project.

- A personal project where I packaged an open-source web app into a standalone desktop application using ElectronJS
- Added a feature of an option to capture the screen and save it as a GIF.
 - <u>https://github.com/jchu634/loopy-desktop</u>
- Technologies: HTML, JS, Electron

Interests

I have a strong interest in enterprise computing and servers.

Over the last few years, I have been experimenting with networking and virtualisation while managing a homelab. In my spare time, I enjoy gaming and am currently playing through Astral Chain.