ELLIOTT CHONG

Front-End Developer

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EXECUTIVE SUMMARY

- Aspiring **front-end developer** who is deeply passionate about creating practical and **beautiful user interfaces**.
- **Self driven** individual that is enthusiastic in **improving and adapting** to the tech industry through competing in **hackathons**.
- **Effective communicator and leader** through working with various people in different hackathons, organising workshops + competitions.

EDUCATION

St Josesph's Insitution

2018 - 2020

Singapore Polytechnic

Diploma in
Information Technology

3.96 cGPA

2022 - current

CCAs

School of Computing Club (SOCC) Events SubComm

Plan & execute events for School of Computing Students in Singapore Polytechnic.

Singapore Poly AI (SPAI) Events SubComm

Plan & execute events related to Artificial Intelligence, spreading the amazing world of AI to the student body.

EVENTS & HACKATHONS

Host of How to Git & GitHub

- Hosted a tutorial on the use of **Git & GitHub** to the Singapore Poly student body.
- Created the **slides & content** for this tutorial.

Polyfintech100 Hackathon (First Runner Up)

- The objective of PolyFinTech100 API Hackathon is to **nurture FinTech talent** to meet the rapidly changing needs of the **financial services** sector.
- We came up with a **software solution** that helps users keep track of their **portfolio/achievements** by putting it on the **blockchain**.

NUS Lifehack 24 Hours Hackathon

- LifeHack 2022 is a hackathon aimed to channel the creativity, drive, and skills of the participants in the software development field.
- Implemented a **CV model** to **detect Recyclable** objects built using **TensorFlow**.

PROJECTS

Personal Portfolio Website

2021

Project link: elliottchong.com
Source code link: GitHub

- Using my frontend development skills, I designed from scratch my own **portfolio website** that I use to showcase all my coding projects.
- All **custom theme** and **layout** designed on **Figma**
- Hosted on my own **linux web server** at home using **Nginx**.
- **Cusom domain name** linked to my webserver.

SKILLS

Javascript
HTML
CSS
Bootstrap
TailwindCSS
React
Node.js
Express.js
MongoDB
SQL
Python
Django
Git
Nginx
Postman

PROJECTS

Bootstrap Portfolio Website

2022

Project link: https://bootstrap-elliottchong.netlify.app/
Source code link: GitHub

- A **remake** of my vanilla portfolio website using **Bootstrap 5.**
- Used bootstrap's components such as **accordians, modals, carousels**.
- Used bootstrap's grid model for easy **mobile-first responsive** designs.

Path Finding Visualisation

2022

Project link: https://path-finding-visualiser.netlify.app
Source code link: GitHub

- Implemented with **p5.js**, this project is a showcase of some of the more famous **search algorithms**.
- Features **BFS, DFS, A* & Greedy** best first search.
- Start & end point persistance with **LocalStorage**.
- Features **random** maze generation.

SportBuddy

2021

Project link: https://sportbuddy.elliottchong.com
Source code link: GitHub

- A **social media platform** that allows users to find companions to play sports with.
- All custom **frontend responsive** UI built with **React & tailwindCSS.**
- All custom backend featuring **Express.js, Node.js & MongoDB**.
- Google **OAuth** for SSO.
- State management featuring React's **context API** and the **useReducer** hook.
- Custom **auth workflows** utilizing **JWTs** for persistent browser login.

PROJECTS

Minesweeper AI

2022

Project link: https://minesweeper-elliott.netlify.app/
Source code link: GitHub

- Implemented with the **p5.js** library, this project features both the minesweeper game and an AI that plays it.
- The AI was coded in JavaScript.
- The design of the AI involves the logic of solving **constraint satisfaction problems** (CSPs)

Nim AI (Reinforcement Learning)

2022

Project link: https://nim-ai.netlify.app/
Source code link: GitHub

- Vanilla HTML, CSS & JS for the frontend.
- The AI is trained through **Reinforcement Learning** (Q-Learning), playing against itself many times and learning the optimal move to play at any state.
- By playing against itself for 10,000 games, and assigning rewards and punishments to its moves, the AI is able to learn the optimal move to play at any state. To balance exploration and exploitation, the AI chooses its moves based on the **epsilon-greedy algorithm.**

PROJECTS

Smart Rockets (Genetic Algorithm)

2022

Project link: https://smartrockets-elliott.netlify.app/
Source code link: GitHub

- This is a showcase of **genetic algorithms**, a search heuristic inspired by natural evolution.
- The fittest elements of the population gets **crossbred and reproduces** the next generation with their genes. After many generations, they will eventually **converge on the optimal genes** for the task at hand.
- The fitness of each rocket is calculated by the **inverse of the distance between it** and the target at the end of its lifespan.

Custom GitHub Dashboard

2022

Project link: https://github.elliottchong.com/
Source code link: GitHub

- I was lazy and tired of always going to GitHub and **painstakingly** finding the repo I'm looking for.
- So I implemented a **frontend UI** that hits the **GitHub API** to get a list of all my repos so that I can **navigate to them quickly**.

Random Quotes Generator

2022

Project link: https://quotes-elliott.vercel.app/
Source code link: GitHub

- Build with **NextJS** and **Firebase**, this is a **experimental web app** for me to learn these new technologies. Learning a **BaaS** (backend as a service) is immensely useful as it can help reduce a lot of **backend boilerplate** code.

PROJECTS

Newton Rhapson Visualiser

2022

Project link: https://newton-elliott.netlify.app/
Source code link: GitHub

- The Newton-Raphson method (also known as Newton's method) is a way to quickly find a **good approximation for the root of a real-valued function** f(x) = 0f(x)=0. It uses the idea that a continuous and differentiable function can be approximated by a straight line tangent to it.
- This is a simple visualisation of each **iteration** of the Newton method using **p5.js**.