ALEXANDER LISWANDY

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EXECUTIVE SUMMARY

Detail-oriented and driven Computer Science student with a robust 5-year track record in software development, in the capacity of an individual contributor and collaborative team member. Notable technical proficiencies include React with Redux in TypeScript for front-end development, Python's Flask and FastAPI frameworks, SQL and MongoDB for back-end development and additionally programming in Java & C. Looking to expand my programming skill set to explore ways to create clean and well-designed solutions.

EDUCATION

National University of Singapore   2023 to 2027
Bachelor of Computing in Computer Science

- 5.0 GPA

Dunman High School, Singapore   2015 to 2020

- GCE A-Level H2 **Computing**, **Mathematics** and **Physics Distinction**
- Top in school level for H2 **Computing** in 2019

WORK EXPERIENCE

Neurowyzr   Mar 2023 to Jul 2023
Software Development Intern

- Implemented comprehensive automation testing for mobile applications using **Appium** and **Behave**.
- Developed and maintained front-end **React.js** applications. Implemented new features, fixes and code refactoring, compliant with strict Content Security Policy (**CSP**) to enhance security.
- Contributed in developing organization's inaugural **Python** back-end services with **FastAPI** and developing an image processing service using **Pillow**.
- Independently developed an internal tool for application and service version tracking utilizing **Google Apps Script**, **AWS Lambda & API Gateway**.

NM Dev   May 2021 to Oct 2021
Technical Content Writer Intern

- Contributed to the creation of the Introduction to Data Science course for NM Dev, a high performance, object-oriented programming library of mathematics, by writing the Basic Statistics chapter.
- Introduced basic statistical concepts in an engaging and simplified manner, aimed at High School students.
- Related the NM Dev library functions to their corresponding statistical concepts through sample code in **Kotlin**.

Link(s): https://nm.education/courses/introduction-to-data-science/lessons/basic-statistics/

PERSONAL PROJECTS

Planner++   Dec 2023 to Present
Personal Planner Application

- Currently developing a streamlined planner app, inspired by the Kanban framework and task organization features on Notion, for personal task tracking.
- Front-end created with **React.js**, **React Redux** in **TypeScript**, utilizing libraries such as **React Beautiful DnD**.

Link(s): https://github.com/Airiinnn/plannerpp-app

Project Navex   Dec 2022 to Feb 2023
Navigational Data Sheet (NDS) Generator Web Application

- Developed a **JavaScript** based web application utilizing **Google Maps API** and **EPSG API** to tackle a problem identified during my time in National Service.
- Automates tedious and repetitive tasks during NDS creation, reducing the time required to create one by up to **75%**.
- Extended the usage of the tool to all other NSFs through advertising, garnering a peak of over **500 uses per day**.

Link(s): https://projectnavex.com/ | https://github.com/projectnavex/project-navex

lis   Feb 2023 to Jul 2023
Personal Programming Portfolio Website

- Designed and developed a programming portfolio for myself using **React.js**.
- Paid special attention to **UIUX** considerations while designing the website.
- Ensured website is compatible on common devices through the use of a **responsive web design**.

Link(s): https://alex.lis.fyi/ | https://github.com/Airiinnn/lis

ACADEMIC PROJECTS AND ACHIEVEMENTS

BuildingBloCS, Singapore   Nov 2019 to May 2020
Games Organising Committee Lead

- Singapore's **largest outreach programme** for students, by students, aimed at promoting more exposure to Computing and Computer Science as a whole for Secondary School, JC and IP students, supported by various partners like Ministry of Education and Google.
- Spearheaded a team of JC Computing students from all across Singapore in developing **The Amazing Race**, a **Flask** and **JavaScript** based web application game entirely from scratch that introduces basic core programming concepts to participants. Designed the **front-end UI** using **HTML**, **CSS** and **JavaScript** and handled the back-end processing using **Python**, **MySQL** and **JavaScript**.
- **Collaborated** with other committee leads to host its largest annual Computing and Computer Science outreach conference with over **200** student attendees across Singapore.
- Generated and **adapted** game ideas meant for a live conference into digital form due to the COVID-19 situation.

Link(s): https://github.com/Airiinnn/amazing-race

FOSSASIA Summit   Mar 2020
Web Development with Flask Workshop Instructor

- Independently prepared and conducted a workshop about getting started with **web development** using **Python's Flask** framework together with **Jinja**, **HTML** and **CSS** at Asia's premier developer event exhibition and conference, supported by partners such as Lifelong Learning Institute, Google and Facebook.
- Leveraged proficiency in the **Flask** framework gained through previous school based projects and external hackathons like developing Dunman App in collaboration with the Student Council which was designed to streamline announcements and information flow from school staff to students.
- Attended by over **70** participants combined across the live event and live stream.

Link(s): https://github.com/Airiinnn/flaskworkshop2020

National Olympiad in Informatics, Singapore   Apr 2020
Bronze Award

- Completed over **100** competitive programming problem sets in **C++ / Java / Python** on **LeetCode**, HackerRank's **ProjectEuler+** and **dunjudge.me** to prepare for the competition.
- Participated in multiple other competitive programming competitions like **Google Kick Start** and **Code Jam** as a passion as well as to further deepen my knowledge in **algorithms and data structures**.

SKILLS

Programming Languages
TypeScript / JavaScript, Python, Java, C

Front-End Development
React.js, React Redux, TSX/JSX, HTML, CSS

Back-End Development
Flask, FastAPI

Database Management
MySQL, SQLite, MongoDB

Miscellaneous
Git, Linux, PC Building

OTHER INTERESTS

Puzzle Games
PC and Keyboard Building
Algorithms