

# IZZ HAFEEZ BIN ZEK HAZLEY

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## SUMMARY

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Versatile software engineer with 4+ years of experience and a strong passion for web development and UX Design. Proven track record in developing innovative solutions and enhancing operational efficiency using React and Python.

## EDUCATION

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**Bachelor of Computing in Computer Science, National University of Singapore** Aug 2021 - May 2025

- Second Major in Mathematics
- GPA: 4.69/5.00
- Dean's List placement in two semesters
- Distinction in Database Systems Focus Area
- Coursework: Product Engineering, Software Engineering, Software Testing, Microservice Architecture, Software Specification, Big Data Systems, Parallel Computing

## SKILLS

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**Spoken Languages** — English, Malay, Mandarin, Japanese

**Programming Languages** — TypeScript, Python, Java, Rust, Go, SQL

**Frameworks** — React, Vue, Svelte, FastAPI, Astro, Electron, Rails, Django, Flask

**Technologies** — Git, MongoDB, Figma, Amazon Web Services (AWS), Google Cloud Platform (GCP)

**Technical Skills** — UX Design, Web Development, Product Engineering, Performance Optimization

**Soft Skills** — Creative Thinking, Open-Mindedness, Insightfulness, Collaboration, Independent Learning

## EXPERIENCE

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**Frontend Development Intern** — *WaveScan Technologies* May 2024 - Aug 2024

- Enhanced operational efficiency by consolidating and merging multiple robotics control software applications into a single, cohesive Electron and Svelte platform.
- Enabled rapid insights for improved decision-making by developing real-time visualizations using D3 and VTK.
- Improved network efficiency by migrating IPv4 routes to IPv6 on the Amazon Web Services (AWS) platform.

**Software Engineering Intern** — *Quantum Inventions* May 2023 - Aug 2023

- Attracted 12 clients to the company by developing a dynamic API showcase platform using React and Rails.
- Enhanced visual appeal by implementing an interactive OpenLayers map to demonstrate API outputs.
- Ensured code quality by maintaining and expanding test suites in RSpec and Jest, achieving 92% code coverage.
- Streamlined application deployment and scaling by leveraging Amazon Elastic Kubernetes Service (EKS).

**Enterprise Information Developer** — *Ministry of Manpower* Feb 2021 - Jul 2021

- Strengthened COVID-19 contact tracing efforts by designing PowerBI dashboards and building ETL pipelines to monitor island-wide foreign worker dormitory data, improving the robustness of the Oracle Data Warehouse.
- Promoted good data governance practices to 2400+ employees by developing a SharePoint portal with JavaScript and translating technical documents into accessible language for a non-technical audience.
- Attained 82% speedup in user accounts reporting by developing and automating Excel scripts and macros.

**Data Analytics Specialist** — *Singapore Civil Defence Force* Feb 2019 - Jan 2021

- Shortened Singapore's emergency response times during the pandemic by developing and leveraging a machine learning application written in React and Flask.
- Achieved 88% runtime speed-up and 96% Google API cost reduction by implementing location-caching strategies.
- Future-proofed emergency services by developing a Python model to simulate demand over 13 years, resulting in the proposed placement of 10+ fire stations and 30+ ambulances as part of the 2030 Masterplan.
- Improved emergency response times for critical cases by developing a recommendation engine in Python that identified 43 faults in an incident triaging system.
- Ensured high-quality work by mentoring and training four junior team members in developing data science projects.

## CERTIFICATES

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**Front-End Developer Professional Certificate** — *Meta*

**UX Design Professional Certificate** — *Google*

**Developing Applications with Google Cloud Specialization** — *Google*

**Developing Applications on AWS Specialization** — *AWS*

**Cloud Solutions Architect Professional Certificate** — *AWS*

**Generative AI for Software Developers Specialization** — *IBM*

**Machine Learning Specialization** — *DeepLearning.AI*

**TensorFlow Developer Professional Certificate** — *DeepLearning.AI*

**Scalable Microservices for Developers Specialization** — *Vanderbilt University*

**HSK 5 Chinese Proficiency Test** — *Confucius Institute*

## EXTRACURRICULAR ACTIVITIES

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**Head of Programming** — *Victoria Robotics-Makers Club*

May 2017 - May 2018

- Led 30+ club members in robotics competitions by organizing and conducting 10+ coding training sessions.
- Ensured smooth operation of camp activities by promptly organizing alternatives during weather disruptions.

**Question Master** — *NUS Astronomical Society*

Aug 2021 - Jul 2022

- Played a key role in organizing the annual AstroChallenge competition by designing and reviewing high-impact questions for the Data Analysis round.

## PROJECTS

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**BuilderPal** — Developed an AI-powered project recommender using React, FastAPI and MongoDB. Partnered with **VIVITA** to reach a user base of over 800 children across 7 countries.

**StatAttack** — Created a data-driven card game using React, FastAPI, and websockets, achieving a player base of 136. Utilized Python and Selenium for data scraping and consolidation from multiple sources.

**Portfolio** — Launched a website that attained a monthly visit count of 239. Developed 4 apps, 8 quizzes and 12 games as part of the website, written in Astro, Vue, Svelte and React.

**EduMate** — Developed a meetup recommender in Java, contributing 18000+ lines of code and achieving 98% test coverage with JUnit, ensuring robust performance and reliability.

**ChitChatChampion** — Developed an online ice-breaker platform using Vue, Flask, and MongoDB. Leveraged LLMs to provide endless replayability and deliver highly personalized experiences, enhancing user engagement and interaction.

**RouteWeaver** — Created a hike recommender written in Vue and Rust Actix that features personalization based on preferences like terrain and difficulty, using it to plan 19 of my hikes.

**NoteTogether** — Developed a note-sharing platform with Reddit-like features using Vue, Node.js, and MongoDB, achieving 124 peak users. Includes a Git-like forking system to foster collaboration and a vibrant ecosystem.