STANLEY CHEUNG

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EDUCATION

The University of British Columbia | **GPA: 4.20/4.33**   September 2022 – May 2027
B.Sc, Major in Computer Science   *Vancouver, BC*
- **Courses**: Machine Learning, Computer Networking, Relational Databases, Algorithms & Data Structures, Computer Systems & Hardware, Object-Oriented Programming
- **Awards:** 2023–2024 Charles & Jane Banks Scholarship, 2022–2023 UBC Science Scholar (standing of 90%+) & Dean's List

EXPERIENCE

Software Engineer Intern | TypeScript, Express.js, PostgreSQL, AWS, React   January 2024 – July 2024
VoltSafe Inc.   *Vancouver, BC*
- Designed and implemented an end-to-end roles-based access control system with an Express.js, PostgreSQL, and AWS Cognito backend, ensuring controlled access to the internal admin dashboard.
- Developed and Dockerized a server monitoring system using React, Express, and Prometheus, enabling real-time collection and analysis of CPU, RAM, and disk metrics across 7+ EC2 web and database servers.
- Developed an image and document storage system with a RESTful API for the marina management app, leveraging AWS S3 to optimize performance and reduce bandwidth costs, enabling users to upload, storage, and retrieve documents and images.
- Conducted a performance analysis of the marina management app using Chrome Lighthouse, reducing total app bundle size by 22% by pruning unused static assets, leading to improved load times.

AP Computer Science Instructor   October 2022 – February 2023
iSmart Education Canada   *Vancouver, BC*
- Designed and taught weekly CS lessons on algorithms, data structures, and Java programming.
- Generated $3000+ revenue for the company part-time.
- Exceeded expectations by supporting students, some still in primary school, in achieving 5/5 on the AP CSA 2023 exam.

TECHNICAL PROJECTS

Pathfinding Visualizer 🔗 | TypeScript, GitHub Actions, React   August 2024
- Built a web app for visualizing pathfinding algorithms like Dijkstra's, A*, and DFS.
- Implemented the recursive backtracking algorithm to generate random mazes inside the visualizer.
- Enhanced the app's responsiveness by dynamically calculating grid dimensions based on screen size.
- Set up a Continuous Deployment pipeline using GitHub Actions to automate deployment.

Image Compression Tool | C++   July 2023
- Built an image compression program in C++ that can process images up to 5 million pixels.
- Implemented a recursive traversal function to prune subtrees within a user-determined tolerance threshold, enabling compression at different intensities.
- Leveraged dynamic programming to calculate average HSLA pixel values in $O(1)$ time instead of $O(n)$.

TwoChess 🔗 | Java, JUnit, Swing   April 2023
- Created a two-player chess game using the Model-View-Controller (MVC) design pattern.
- Wrote a full-fledged suite of unit tests with JUnit resulting in 100% code coverage.
- Implemented local storage using JSON, allowing users to save and resume past matches.

Eat n' Log 🔗 | React Native, Redux, Figma   June 2023 – October 2023
- Worked with a multidisciplinary team of 15 to develop an IOS mobile app, enabling food lovers to seamlessly document and share their favourite dishes and dining experiences.
- Developed five core frontend features using React Native with Redux for state management: search bar, tag filtering, home screen, authentication flow, and editable user entry pages.

TECHNICAL SKILLS & CERTIFICATIONS

Languages: TypeScript, JavaScript, Python, SQL, R, Java, C
Frameworks: React, Express.js
Other: Node.js, PostgreSQL, Docker, Git, AWS, RESTful APIs, Sequelize ORM, Linux, Prometheus, Jira
Certifications: AWS Certified Cloud Practitioner