Kenny Zhang

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Education

Bachelor of Science in Computer Science *Simon Fraser University* **Burnaby, British Columbia** *June 2025*
Computer Science Major, Minor in Interactive Arts and Technology | Dean's Honour Roll: Spring 2024.

Experience

Software Engineer | *FastAPI, Flutter,* *Jan 2026 - April 2026*
Stealth Startup (SuperKira)

- Led the end-to-end migration from Vercel Serverless to Azure App Service, simplifying infrastructure and reducing
- application latency by 10% by eliminating cross-platform API calls.
- Designed and implemented a WhatsApp integration microservice that synchronized user conversations in real time,
- enabling AI-powered personalized relationship coaching and supporting a six-figure enterprise opportunity.
- Leveraged AWS S3 and SQS to efficiently handle real time live translation by sending video chunks to workers
- instead of directly handling the request.

AR Developer, Contract | *Unity, C#,* *April 2025 - July 2025*
Simon Fraser University

- Used Niantic Lightship and Unity to **develop an immersive augmented reality learning platform providing 20+ teachers** with an immersive learning experience
- Devised **efficient rendering routines** to allow devices as old as iPad 5 to experience the full game with zero lag.
- Utilized semantic segmentation and real time meshing to plot virtual bees to plants.

Mission Operations Co-Lead | *Python, TypeScript, Node.js* *Sept 2023 - April 2025*
Simon Fraser University Satellite Design

- Coordinated with subteams to collect operation requirements and **lead a team of 6+ designers and developers** to **launch ALEASAT disaster relief satellite microsite and Image Requests dashboard.**
- Implemented end to end tests on CI/CD pipelines to **maximize test coverage** using Cypress.

Data Visualization Programmer, Contract | *Leaflet.js, Node.js, Express.js, MySQL, OAuth* *Jul 2022 - Sept 2023*
Simon Fraser University Faculty of Education

- Designed and developed a **full stack application** using Leaflet.js, HTML and Node.js to interactively **plot publication data** on a map, **deployed on cPanel for 100+ researchers.**
- Built scalable pipelines for **handling large datasets exceeding 10000+ entries from CSV**, into MySQL database
- Implemented single sign-on interface and dashboard with Central Authentication Service using **OAuth** and **passport session management** for managing several user accounts and permissions

IT Support Technician, Co-op | *Powershell, AD, Jira* *Feb 2021 - Aug 2021*
College of Physicians and Surgeons of British Columbia

- Triaged and resolved **20+ user tickets a week**, ensuring **high user satisfaction** across all departments.
- Wrote a script to streamline College-wide email extraction problem, **from department emailing to instantaneous results**
- Compiled **comprehensive documentation** for Mitel Deskphone based on **frequent complaints**, reducing ticket volume by **20%**

3D Artist and Front-End Developer, Contract | *Unity, C#* *Oct 2020 - Jul 2021*
Simon Fraser University, Science World

- Utilized Zappar's AR libraries **to build an web-based augmented reality application for the largest science centre in BC**, providing patrons **exhibits of interactiveable AR bees for bee lifecycle education**
- Used Unity UI to **develop onboarding workflows** for patrons to interact with the virtual bees.
- Modelled, refined and tested **high quality 3D bees models** ensuring it runs **60+fps** and on **all mobile devices**

iOS Frontend Developer, Intern | *iOS, Swift* *Jun 2019 - Aug 2019*
Game of Apps

- Implemented Expand Your Knowledge, a searchable repository sorted with all lecture materials for all sessions of GoA, along with improving the functionality of the main dashboard screen reducing search time by 10%.
- Collaborated with other team members and helped them resolve bugs with their code and ensure project requirements are met.
- Developed and improved the Credits screen and ensured the screen matches the expectations per the design team.

Projects

ConvoBuddy - Conversation Entry App | *Pandas, React, Python, Node.js* *Sept 2024 - Dec 2024*

- Architected three major subsystems for tracking user positioning, speech extraction and GPT4o integration for realtime conversation transcription and entrance tips.
- Constructed React frontend for displaying conversation summaries and advice for entering conversations within 2 seconds
- Nominated for the 2025 CS Diversity Award

SHOP THE NORTH - Hack The North 2024 Winner | *Unity, C#,* *Sept 2024 - Sept 2024*

- Developed immersive virtual reality shopping experience using Unity winning sponsor prizes from Shopify and Ubisoft.
- Implemented grabbable clothes that can be worn naturally.
- Implemented custom character body texturing using images from Shopify's Image API based on equipped clothing.

VOLTCRAFTER VR TRAINING - Vancouver Community College | *Unity, C#,* *Jan 2024 - Aug 2024*

- Implemented 30+ electric battery replacement tutorials with realistic grabbable components, animations and haptic feedback.
- Built Mission Manager and Hand Detector framework with OOP to improve development workflow by reducing code repetition across multiple scenes.
- Conducted academic research with 12 participants directly from VCC to determine the effectiveness of virtual reality training and considerations in VR development.

The Last Custodian | *Unity, C#,* *Jan 2024 - Apr 2024*

- Developed three platforming stages and two puzzle stages using the Corgi framework in Unity providing users with intriguing and mysterious atmospheres as they explore.
- Implemented user inventory system for storing key items and powerups, and enemy AI that responds based on environmental changes.
- Combined point and click puzzles with platforming problem solving to give users a distinct experience from traditional point and click puzzles.

C++ 3D Game Engine - Personal | *C++,* *Jan 2023 - Feb 2024*

- Built an efficient software 3D renderer using only the Windows API and C++ standard library with matrix library implemented from scratch.
- Applied concepts from computer graphics such as linear transformations, graphic pipelining and pixel shading using object oriented programming to keep game components organized, decreasing development times by 25%
- Implemented multithreaded and parallel execution routines for graphic routines and used a difference-based image rendering system, allowing up to HD output and up to 100K polygons.

Plant Scan - AvaGrows Project | *Node.js, Express.js, ML/CNN,* *May 2022 - Aug 2022*

- One of the 5 selected groups out of 20 to undergo a employer project for the company AvaGrows.
- Developed using HTML, CSS, JavaScript and utilized a custom Postgres Elephant.SQL server deployed using Heroku.
- Designed a web application with a team of 5 to capture, store and display information about various plants captured using a Convolutional Neural Network REST API.

Skills

- **Languages:** C, C++, C#, Python, Powershell, Unix bash, HTML, CSS, JavaScript, TypeScript, Java, Swift, XCode
- **Frameworks:** Unity, Node.js, Express.js, React.js, Next.js, SQL, Pandas, NumPy
- **Technologies/Tools:** Active Directory, SCCM, Microsoft Exchange, ManageEngine, Veeam, Git, Jira, Cypress (E2E)
- **Methodologies:** Scrum, Agile, ITIL, Kanban

Awards & Honours

2024 Gerri Sinclair Award *Sept 2024*

Centre for Digital Media

- Innovative use of VR to revolutionize automotive technology training exemplifies the forward-thinking, impactful solutions that this award seeks to recognize.

Best Developer Award - Game of Apps Season 2 [2019] *Apr 2019*

Game of Apps

- Through excemplary work and attempting to implement features beyond of what is taught in Season 2 (such as implementing notifications and persistent data in Swift)

Other Experience

Computing Science Peer Tutor *Jul 2022 - Jan 2023*

Simon Fraser University

- Assisted and helped students that are struggling with course concepts and coursework and provided guidance and debugging help when appropriate.