Andrew Zhou

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Personal Summary

Indie game developer. Diligent and artistic. Meticulous about numbers and organizing data. Passionate about coding and writing stories.

Education

Bachelor of Science in Physics (UBC)

Statistical Mechanics PHYS 403

Honours Linear Algebra MATH 223

Data Structures and Algorithms CPSC 221

Java 8 Programmer (Oracle)

PCB Design and Prototyping Certificate (UBC)

Class 5 Driver's License (ICBC)

Technical Skills

- Frameworks: Spring Boot, AngularJS, Next.is, FastAPI, Scrapy
- Libraries: React.js, SciPy, NumPy, Pandas, Matplotlib, Scikit-Learn, Scikit-Image
- Database Tech: MySQL, PostgreSQL, SQLite
- Cloud Tools: AWS, Google Cloud, Heroku, Vercel, Supabase
- Build Tools: Maven, Gradle, Webpack, Docker
- Editor Tools: VSCode, IntelliJ
- CI/CD: YAML, GitHub Actions, Heroku Procfile
- APIs: AWS Polly, Stable Diffusion, Postman
- Hardwares: MSP430 Microcontroller, K210 AIMotion Visual Module, C286 microSD, Oscilloscopes, Multimeter

Work Experience

Elite Prep | Tutor (Mar 1 2025 - Ongoing)

• Helping high school students excel in Physics and Mathematics.

Steamoji | Facilitator (Nov 2024 - Ongoing)

• Provided mentoring for 5-6 students making science projects.

Walmart | Frozen/Dairy Associate (May 2022 – Dec 2022)

 Provided assistance to customers, managed inventory and stocked up shelves in Frozen/Dairy area, sometimes rotated to other departments.

Scope Media | Intern (May 2022 – Aug 2022)

 Scraped data from NFT marketplaces using Scrapy, collecting and integrating NFT items into databases on server

Confucius Institute | **Teacher Assistant** (Jan 2017 – May 2020)

• Took care of students and marked their homework assignments and exams

Laboratory & Technical Skills

- Chemical Handling & Safety
- Electronics & Circuit Testing
- PCB Soldering
- Power tools & Mechanical Prototyping

Projects

Coding projects are on GitHub: https://github.com/AndrewZhouMQ123

PHAS ELAB Timed LED PCB (Sep 2024 - Oct 2024)

- Designed, prototyped, assembled and tested PCB with power module and signal amplifier module
- Control LED flashing using NE555 with adjustable power resistors to adjust frequency, gain and offset.

Lab Course Work

High-Temperature Superconductivity (YBCO) | Phys 409 Lab

- Investigated the power law relation for Meissner effect in YBCO superconductors utilizing Lock-In Amplifier's analog detection mechanism.
- Handled liquid nitrogen and hydrogen gas for cryogenics

Positron Emission Tomography (PET) Demonstration | Phys 409 Lab

• Conducted a proof-of-concept experiment for PET imaging and reconstructed radiation distribution images using 2D Radon Transform algorithm.

MSP430 Microcontroller Water Level Monitor | Phys 319 Lab

• Designed and programmed a microcontroller-based real-time water level monitoring system.