Andrew Zhou

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Personal Summary

New graduate from UBC Physics. Passionate about problem solving and learning new things.

Education

University of British Columbia (Bachelor of Science | Major in Physics)   *2020 Sep – 2024 Nov*
Coursework: *Statistical Mechanics | Linear Algebra | Differential Equations | Data Structures and Algorithms*
Certifications: Java SE 8 Programmer OCA, UBC PCB Design and Prototyping Certificate, Insurance Level 1 Certification
Languages: English, Chinese
License: Class 5 Driver's License
Programming Languages: Python, Java, SQL, JavaScript, CSS, C, C++, R, MATLAB

Tech Stack

- **Frameworks:** Spring Boot, AngularJS, Next.js, 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

Soft Skills

- Diligent
- Team Player
- Detail Oriented
- Strong Communication
- Artistic

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

Technical Projects

ChaosKnight
• A party turn based RPG game created using LibGDX with 2D / 3D hybrid graphics.
Andrew's Online Notes https://andrewsonlinenotes.vercel.app/
• Online notes and time saving utilities
Share Vlogs Website http://vlogms.s3-website.us-east-2.amazonaws.com
• A website for sharing vlogs created using Spring Boot and React hosted on AWS.
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.