

Jiawei He (Anson)

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TECHNICAL SKILLS

- **Programming Languages:** Python, TypeScript/Javascript, Java, C
- **Cloud & Infrastructure:** AWS (EC2, S3, Lambda, RDS), Firebase, Docker, CI/CD, Git
- **Backend Development:** Node.js, Express.js, Bun, Hono, RESTful APIs, Microservices
- **AI & Machine Learning:** YOLOv8, PyTorch, Computer Vision, Edge AI Optimization
- **Frontend Development:** React, React-Native, Next.js, TailwindCSS, HTML/CSS
- **Database & ORM:** MySQL, MongoDB, PostgreSQL, Prisma
- **Development Tools:** Data Structures & Algorithms, Object-Oriented Programming, System Design, Linux

WORK EXPERIENCE

Bayes Studio

Software Engineer Intern

Jan 2025 - Aug 2025
Vancouver, Canada

- **Architected** and deployed a real-time AI inference pipeline achieving **sub-10ms** response times, implementing efficient data processing workflows with **YOLOv8** optimization for edge computing environments.
- Built a scalable multi-source data ingestion service **handling 6+ concurrent data streams with 10-30ms latency**, supporting real-time analytics and anomaly detection systems.
- Engineered a high-throughput event processing pipeline with custom priority queuing, **processing 10+ events/sec with guaranteed <100ms end-to-end latency to cloud infrastructure**.

Ugreen Group Limited

Senior Product Engineer (Technical PM)

Jun 2021 - Jun 2023
Shenzhen, China

Product Lead for the Power Strips product line, achieved \$4.8M+ in product sales revenue in 1.5 years.

- Led cross-functional development for **17+ smart power control systems in Chinese market and 9+ international products**.
- Defined and iterated on embedded software specifications (e.g., load protection algorithms, PD fast charge protocols, energy monitoring systems), working directly with R&D to ensure software quality and release readiness.

Seed Studio

Product Manager

Dec 2020 - Apr 2021
Shenzhen, China

- Defined technical requirements and led cross-team collaboration for **Raspberry Pi CM4 Dual Gigabit Carrier Board**, with **1000+ pre-orders sold in first week**.

Seed Studio

Application Engineer

Jun 2019 - Dec 2020
Shenzhen, China

- Developed and maintained C/C++ software for popular developer platforms (**Wio Terminal**), supporting multiple development ecosystems with **1000+ daily documentation** visits and active developer community engagement
- Implemented **Travis CI/CD** pipeline using automated build tools to enable multi-architecture testing and deployment across distributed development environments, achieving **95%+ build success rate**.

HACKATHON & COMPETITIONS

Qualcomm x Microsoft x Northeastern University On-Device AI Builders Hackathon

Software Engineer

Mar 2025
Vancouver, Canada

Built an end-to-end on-device AI navigation system for wheelchairs using computer vision and speech processing.

- **1st Place Winner** out of 15 teams.
- **Implemented** real-time **YOLOv8n** object detection on Snapdragon X Elite CPU, achieving **<40ms inference latency**.
- **Integrated OpenAI Whisper** for voice command parsing with **<10ms latency** via Qualcomm AI SDK + ONNX Runtime QNN

KEY PROJECTS

CatchUp: Real-time Location Sharing Mobile App (React Native · Firebase · MapBox)

Video Demo / Github - ansonhex/CatchUp

- **Built** a cross-platform mobile app with **React Native + Expo**, achieving **98% code reuse** between iOS and Android platforms.
- **Engineered** a real-time location system using **Firebase realtime DB + MapBox**, maintaining **<1s update latency** across devices.
- **Implemented** bidirectional friend relationships, activity logs, and push-based location updates using event-driven architecture.

BC Cancer Donor Lifecycle Management (Next.js · Bun · Hono · TailwindCSS · shadcn/ui)

Live Demo / Github - ansonhex/BC-Cancer-LifeCycle-POC

- Architected a full-stack dashboard using **Next.js (Frontend) and Bun+Hono (Backend)**, achieving consistent **API response times of <100ms**.
- **Built** an automated donor classification pipeline handling **100+ profiles** using custom business logic and **batch job queuing**.
- **Developed** a responsive UI using **TailwindCSS + shadcn/ui**, visualizing lifecycle stages with React hooks and async data loaders.

fakeX: Full Stack Social Media Application Inspired By Twitter (React · Node.js · Express.js · MySQL · Prisma · Auth0)

Live Demo / Github: ansonhex/fakeX

- Developed a scalable social media platform with **React, Node.js, Express.js**, supporting **100+ concurrent users** with room for horizontal scaling
- Implemented secure auth system using **Auth0 + JWT**, supporting **100+ successful sessions** with session expiry.
- Designed **MySQL** schema with **Prisma ORM**, leveraging composite indexes to achieve **<100ms query latency** on feed and profile pages.

EDUCATION

Northeastern University

MSc Computer Science

Sep 2023 - Dec 2025
Vancouver, Canada

- **GPA: 4.0/4.0**
- **Courses:** Data Structures & Algorithms, Machine Learning, Object-Oriented Design, Web Development, Cloud Computing, Mobile Development

University of Exeter

BEng(Hons) Electronic Engineering

Sep 2015 - Jun 2018
Exeter, United Kingdoms

- **Grade: First Class Honours** (Incl. First Class Dissertation) / **GPA: 3.9/4.0**