

Xue Yufeng

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EDUCATION

Singapore University of Technology and Design

Bachelor of Computer Science First Class Honours (4.64/5.00 GPA)

8 Somapah Rd, Singapore 487372

Sep. 2023 – Present

EXPERIENCE

Intern

Panasonic R&D Center

Sep 2025 – Dec 2025

202 Bedok South Ave 1 #02-11, Singapore 469332

- Researching a radiowave blood pressure sensor

Tutor

Envision Learning

Mar 2023 – Jan 2024

35 Circuit Road #01-442, Singapore 370035

- Developed soft skills working with colleagues and interacting meaningfully with students

PROJECTS

Ascenda Booking Platform | *NestJS, PostgreSQL, Railway, TypeScript*

May 2025 – Present

- TODO

ParcelEye AI Tracker | *Android SDK, AWS, Docker, ExoPlayer, FFmpeg, Flask, Gradle, Java, MongoDB, Nginx, Python, SAM2.1, Spring Boot*

Jan 2025 – Apr 2025

- Proposed the project which got accepted by my team. It consists of an Android App livestreaming to an AI server and playing the output from the AI, to track parcels and solve a real world problem of parcels being stolen at our school.
- Exposed a Flask API to control and feed a livestream into SAM2.1 AI using Nginx and FFmpeg
- Created a Spring Boot API integrating with MongoDB for authentication purposes using JWT
- Implemented the ExoPlayer in Android App to consume HLS from AI as well as integrating authentication flow with the API and AI
- Hosted the AI and API on AWS using EC2 and configured the VPC to secure our servers.
- Containerized the AI server and got image size down to from 32GB to 5GB with multi-stage builds

FPGA Game | *Alchitry AU, Alchitry Labs, Lucid*

Jan 2025 – Apr 2025

- Our FPGA controlled 6 7-SEG displays and I made sure that there wasn't excessive current flow by creating code that cycles through all displays rapidly to give the illusion that all lit up at same time.
- We needed our FPGA to be able to control the digits on the displays with 6V but it can only output 3.3V signals so I researched and used PNPBJT for our case to pull up the voltage.

Cat Dog Classifier | *Google Colab, Pillow, Pytorch*

Dec 2024 – Dec 2024

- Applied concepts (residual connections, hierachal layers, data normalization and standardization, etc) from proven models (ResNet, VGG, etc) to build a model that achieves 95% accuracy in training and validation of binary classification of cats and dogs.
- Used GradCAM to show the parts of images that the AI uses to distinguish from cats and dogs

Resume Website | *CRACO, Firebase, GitHub Actions, React, Styled-Components, Jotai, Vite*

Oct 2024 – Present

- Used the BaaS Firebase to authenticate users but dropped that afterwards in favour of a better UX for my recruiters
- Utilized GitHub Actions to achieve Continuous Integration/Continuous Deployment (CI/CD) with my hosting platform Firebase
- First time applying SOLID principles for my first significant project, and leverage states, contexts, and providers to achieve that end
- Migrated from CRACO to Vite for better RAM usage

TECHNICAL SKILLS

Languages: C/C++, CSS, HTML, Java, JavaScript, Lucid, Python, SQL (MySQL, Postgres), TypeScript

Frameworks: Flask, JUnit, NestJS, Node.js, Qt, React, Spring Boot

Developer Tools: Android Studio, AWS, CRACO, Docker, Firebase, Git, GitHub Actions, Google Cloud Platform, Google Colab, IntelliJ, PyCharm, Railway, VS Code, Visual Studio, Vite

Libraries (Java): Dotenv, ExoPlayer, Firebase Admin, Jakarta Mail, Java Net, Java IO, JUnit, MongoDB Driver, Netty, OkHttp, Retrofit, Spring Boot

Libraries (Python): Matplotlib, NumPy, OpenCV, Pandas, Pillow, PyTorch, Requests

Libraries (TypeScript): Styled-Components, Jotai