

WANG LIAO

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EDUCATION

Bachelor of Computer Science

Sep 2020 – Sep 2023

The University of New South Wales

Sydney, Australia

- CSESoc Flagship Hackathon 2023 - Best UI Design Prize
- CSESoc Development Subcommittee
- UNSW Founders Community Member

PROFESSIONAL EXPERIENCE

Frontend Developer & Cloud Specialist

May 2023 – Aug 2023

<https://eventstar-app.liao.sh>

- Developed a fully responsive cloud-based web application with a team of 5 under Scrum Methodology using **TypeScript**, **React**, **TailwindCSS**, **FastAPI**, **RESTAPI**, and **PostgreSQL**.
- Crafted a seamless UI/UX experience, individually implemented **Authentication**, **Home Page**, **Search Page**, **Host Profile**, **Referrals**, **Analytical Dashboard**, **Survey**, etc. with **M-UI**, **Antd**, **NextUI**.
- Deployed backend on **AWS EC2** instance with pre-built **AMI**, ensuring **HTTPS** security via **Apache2** configuration and **Certbot**. Utilized **AWS Route53** to link a public IPv4 address to a customized domain.
- Optimized media loading speed by setting up an **Azure Blob** image server for cloud-based media storage. Ensured production readiness by replicating **PostgreSQL** database and deploying frontend via **Vercel**.
- Enhanced user experience by accurately detecting and utilizing user location for precise event filtering based on proximity by integrating **Geocoding API** & **Google Maps API** into Search Page.

Casual Backend Software Engineer

May 2023 – July 2023

Bright Engineering Pty Ltd

Sydney, Australia

- Developed highly available and fault-tolerant **Microservices** following **MVC** design pattern, with **REST API**, **Python**, **FastAPI**, **TypeScript**, **Express.js**, **Firebase**, **MongoDB**, **Git**, **JIRA**.
- Implemented automated **CI/CD** pipelines using **Google Cloud**, **Docker**, **YAML**, **Shell Script**, **Bitbucket**. Configured resources and credentials to ensure seamless and efficient deployment processes.
- Migrated repositories from **Flask** to **FastAPI** using **TDD** methodology with type annotations.
- Refined payment processing and SMS functionalities leveraging the **Stripe API** & **Twilio API**.
- Developed **45+** API test cases per repository using **Mongomock**, **Pytest Fixtures**, and **Postman**.

Intern Data Analyst

Sep 2022 – Dec 2022

Volvo Cars

Shanghai, China

- Contributed to DIM Warning Project, assisting in developing traffic warning data **Middleware** with **Java**, **AWS SQS**, **Spring Boot**, **Maven**, **SQL**, **Python**, **JSON**, **XML**, **Git**, and **JIRA**.
- Utilized **SQL** statements to execute **CRUD** operations in an SSH server hosted in **CentOS Linux**.
- Created data processing scripts with **Python** & **OpenPyXL** to generate **80,000+** compliant vehicle data.
- Developed legal web crawler scripts with **Python** to scrape latitude and longitude data of Chinese cities into a **JSON** format file, and generated random coordinates in backend with **Java**.
- Documented detected issues and refined solutions on **Confluence** using **Markdown**.

Intern Analytical Validation Engineer (Embedded System QA)

Aug 2022 – Dec 2022

Volvo Cars

Shanghai, China

- Participated in PDS Product Navigation Project. Designed and developed **166** automation tests for In-House AutoNavi Map with **Python**, **Appium**, **Robot Framework**, **ADB**, **OpenCV**, **Git**, **Gerrit**, and **JIRA**.

- Developed an image recognition script with **Python** and **OpenCV** to identify distinct reachable ranges.
- Responsible for internal ordering business, contacted colleagues from Sweden and Indonesia offices.
- Updated embedded entertainment system on experimental vehicles by manipulating flashing software.

Intern Software Quality Assurance Engineer

Feb 2022 – May 2022

QAD *Shanghai, China*

- Participated in CM Service Project. Designed and developed automation/manual tests under an extremely large code base with **Python**, **Selenium**, **SVN**, **One Page Object** pattern, **Unittest**, and **JIRA**.
- Developed **Python** methods based on requirements, added page objects using **One Page Object** pattern.
- Optimized testing process by conducting root cause analysis to drive continuous improvement.
- Maintained comprehensive documentation of issues identified during testing process using **Markdown**.

CERTIFICATION

- AWS Certified Solutions Architect Associate SAA-C03 ID: UC-5c38b5ab-d6ee-44c4-beca-8c846476dbcf
- AWS Certified Developer Associate DVA-C02 ID: UC-208c8c23-2c3b-460f-9535-7ddb13d545f5
- AWS Certified Cloud Practitioner CLF-C01 ID: Q926QBZC6FF1QY3T

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, HTML/CSS, Python, SQL, Shell Script, SQL, C++, Java

Frameworks: React.js, Next.js, Tailwind CSS, REST API, Express.js, FastAPI, Robot Framework (BDD)

Tools: AWS, GCP, Azure, Linux, Docker, Postman, MongoDB Compass, PgAdmin4, Selenium, Appium, ADB

Version Control: Git, SVN, Bitbucket, GitLab, GitHub, Gerrit

Project Management: Agile Methodology, JIRA, Confluence, SharePoint

EXTRACURRICULAR ACTIVITY

Academic Tutor

Feb 2023 – Jun 2023

Warrane College UNSW

Sydney, Australia

- Led and organized weekly tutorials for Computer Science undergraduates, including COMP1511 Programming Fundamentals, COMP1531 Software Engineering, and COMP2511 Object-Oriented Design & Programming.

Project Training Lead

Feb 2023 – Jun 2023

UNSW Computer Science and Engineering Society

Sydney, Australia

- Led a team of **5** to develop an improved when2meet web application using **TypeScript**, **React**, **Express.js**, **TailwindCSS**, **Material-UI**, **Prisma**, **JWT**, **tRPC**, and **MongoDB**.

Work Experience Placement

Jan 2023 – Feb 2023

IBM *Sydney, Australia*

- Developed web crawler with **Beautiful Soup**, scraped **3,000+** comments for data visualization.
- Received great feedback from final presentation to IBM Client Engineering & Talent Acquisition team A/NZ.

REFEREES

- Alex Perrottet, Dean, Warrane College UNSW
- Daniel Yang, Intelligent Cockpit Team Manager, Volvo Cars
- Lubin Shen, ConX Cloud Team Product Owner, Volvo Cars
- Lihui Ge, QA Specialist, Standard Chartered Bank

Further contact details can be provided upon request