

JIAWEN HE

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Canberra ACT, Australia

in @jwhhh

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EXPERIENCE (WORKING)

Research Software Engineer Australian National University

Sept 2021 – present

Canberra, Australia

- Designed and implemented scientific open-source projects - CoFI and Espresso.

Graduate Software Engineer Instaclub

Aug 2021 – Sept 2021

Canberra, Australia

- Dealt with complex cloud infrastructure cases, particularly PostgreSQL, to ensure reliability and high availability.
- Operated on the company-level database for providing new service and cloud nodes to users

Website Developer WebUMate

Mar 2021 – Jun 2021

Canberra, Australia

- Implemented a full-stack WeChat mini program that sells services for the senior group.
- Implemented a questionnaire website, working both in the front-end (Angular and TS) and the deployment of back-end (Koa Node.js and AWS).
- Implemented an App with a React-based framework called Taro, working both in the front-end and interaction with cloud.

EXPERIENCE (VOLUNTEERING)

Lead Android Developer The Nasio Trust

Jan 2022 – Present

- Developed an offline data collection Android application integrated with Google Spreadsheets as a database.

IT Team Leader; Website Developer Avoice

Aug 2022 – Jun 2023

- Designed, led, developed and deployed the website for the Asian Women Development Plan International. <https://awdpi.org>

Website Developer Australia China Alumni Association

Apr 2021 – Dec 2021

- Designed and built ACAA new website using Wix. <https://austchinaalumni.org/>

EXPERIENCE (CASUAL)

Java Course Tutor Australian National University

Feb 2018 – Nov 2018

Canberra, Australia

- Instructed lab classes, answered and resolved students' questions, marked assignments and helped improve the course material
- Java the programming language, data structures implementations, software engineering principles and core computer science

Summer Research Scholar Australian National University

Nov 2017 – Jan 2018

Canberra, Australia

- Development of a new compiler that translates PyPy's jitcode into Mu (a newly-developed micro virtual machine) intermediate representation

TECHNICAL SKILLS

Python (packaging, scientific computing, Django)
Java, OCaml, Kotlin (Android), JS (React.js, Next.js)
Azure, Haskell, Matlab, HTML & CSS, SQL, R, C



EDUCATION

Bachelor of Information Technology Australian National University

Feb 2017 – Dec 2019

- Overall GPA: 6.54/7
- Major: Intelligent Systems
- Minor: Mathematics

Bachelor of Information Technology (First Class Honours) Australian National University

Feb 2020 – Mar 2021

- Overall GPA: 6.29/7
- Research project: Reasoning about Authentication Hierarchy in First-order Logic - new encoding techniques of authentication properties in security protocols with first-order logic

SELECTED PROJECTS

CoFI

open-source Python Earth Sciences

- Common Framework for Inference
- GitHub: <https://github.com/inlab-geo/cofi>
- Documentation: <https://cofi.readthedocs.io>
- Example set: <https://github.com/inlab-geo/cofi-examples>

Espresso

open-source Python Earth Sciences

- Earth Science Problems for the Evaluation of Strategies, Solvers and Optimisers
- GitHub: <https://github.com/inlab-geo/espresso>
- Documentation: <https://geo-espresso.readthedocs.io>

Collectous

closed-source Kotlin Android
Google Sheets API Google Drive API
SQLite

- Time and cost-efficient offline data collection app for poverty alleviation
- Data stored locally with SQLite; remotely with Google Sheets

AWDPI Website

open-source JavaScript Next.js

- Main website for the Asian Women Development Plan International
- GitHub: <https://github.com/awdp-avoice/awdpi-main-site>