Nancy He

+61 404969972 | hanghur@gmail.com | wakatime.com/@jwhhh | github.com/jwhhh | linkedin.com/in/jwhhh

EXPERIENCE

Research Software Engineer (Python), *Australian National University* — Sept 2021 - Ongoing
- Delivered three major projects and related infrastructures as the lead software engineer in a multidisciplinary team
- Liaised with a range of stakeholders in academia and industry to understand end-user requirements, present software mentioned above and support collaboration opportunities
- Designed, developed, and documented CoFI (Common Framework for Inference), a Python package that connects scientific problems to diverse solving tools. The package currently supports nine inversion methods, attracts over 400 monthly installations, and has been used to solve five real-world geoscientific problems.
- Designed, developed, and documented Espresso (Earth Science Problems for the Evaluation of Strategies, Solvers, and Optimizers), a scientific platform that consolidates cross-language geoscientific inference problems into a single Python package. The platform currently hosts ten problems, attracts over 300 monthly installations, and engages seven community contributors.
- Designed, developed and documented BayesBay, a Python/Cython mathematical package that provides generalised and optimised Bayesian sampling capabilities. The package attracts over 100 monthly installations.
- Developed the team websites (InLab) and maintained Docker containers

Graduate Software Engineer (Java, PostgreSQL), *Instaclustr* — Aug 2021 - Sept 2021
- Ensured the reliability and high availability of PostgreSQL data on complex cloud infrastructure
- Operated on a company-level database for providing new services and cloud nodes to users

Full Stack Developer (JavaScript), *WebUMate* — Mar 2021 - May 2021
- Delivered three full-stack projects as the lead software engineer in a two-person team
- Developed a web application to coordinate the delivery of aged care services (JavaScript)
- Developed a mental health questionnaire website for university students (Angular/TypeScript, Node.js, AWS)
- Developed an online marketplace and bulletin board as a mobile application (React.js/JavaScript)

SIDE PROJECTS

Steering Committee Member, *AuScope M@te* — Aug 2023 - Ongoing
- Attended steering committee meetings, suggested and supported crucial decisions from the technical aspects

Android Software Engineer (Kotlin, SQLite), *the Nasio Trust* — Jan 2022 - Ongoing
- Developed Collectous, an offline data collection Android application integrated with Google Spreadsheets as a database to be used in the health and agricultural settings in Kenya, as the lead software engineer

Website Developer (Wix), *Australian China Alumni Association* — Apr 2021 - Ongoing
- Designed and developed the main website, which attracts 5,000+ visitors from 20+ countries every year

Coach (Python, Django), *Django Girls* — Aug 2023 - Aug 2023
- Provided one-on-one Django blog website tutoring to six girls with diverse technical backgrounds

Team Leader and Software Engineer (Hugo; Python), *Asian Women Development Plan* — Aug 2022 - Jun 2023
- Led the website development and IT support projects, and trained the IT support team of six volunteers
- Designed and developed the main website (Hugo, GitHub Pages, GitHub Actions), empowering an international community of over 3,000 women
- Delivered IT support to the NGO, which included the automation of a volunteer management system serving 300+ members, and the development of a recruitment system tracking 200+ applications

EDUCATION

Bachelor of Information Technology (Honours), *Australian National University* — Jan 2021
- First Class Honours; GPA 6.484/7; Major in Intelligent Systems; Minor in Mathematics

SKILLS

Programming & Platforms	Python, Java, JavaScript (Angular, Koa), Kotlin, SQL, HTML/CSS, OCaml; Hugo, Wix
Databases & Cloud Services	PostgreSQL, SQLite, Azure Database Administration; Basic knowledge of Azure, AWS
DevOps	Experience with CI/CD, Docker, and GitHub Actions.
Project Management	Experience leading software development teams and projects

CERTIFICATES

Azure Database Administrator Associate, *Microsoft* — Sept 2023
Azure Fundamentals, *Microsoft* — Nov 2023