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HAOLIN WU

I am a Software Engineer and Data Scientist with five years of industry experience developing in professional environments. During that time, I have handled entire software life-cycles including analysis, testing and DevOps, whilst working in teams both as a developer and project manager. My work has impacted hundreds of thousands of customers, and given me a customer-first mindset during the entire DevOps lifecycle.

With a double major degree in both computer science and data science, I am also well versed and have practical experience in web development, data integration, data visualization, data mining, high performance computing, and machine learning (incl. deep learning).

I am hard working, pay attention to detail, work well in teams, and manage my time well to meet deadlines.

EDUCATION

2020 – 2021 **Bachelor of Science (Honours)** **The University of Western Australia**
Honours in Computer Science and Data Science
Research Topic: *Deep Learning for Information Extraction from PDF Tables*
First Class Honours, 6.375/7.0 GPA

2016 – 2019 **Bachelor of Science (Double Major)** **The University of Western Australia**
Degree Specific Major: *Computer Science*
Second Major: *Data Science*

EXPERIENCE

2022 - current **Software Engineer** **Telstra**
Working in Telstra Product Engineering developing and maintaining various components of Telstra.com. Lead the development in Telstra Outages, a tool used by millions of customers to visualize network outages and outage areas, as well as Telstra Navigation, the site-wide navigation menu used by customers and businesses for their mobile plans and devices. Engineering involved a variety of modern practices such as Test Driven Development (TDD), continuous integration and frameworks. Additionally, used logging and monitoring for traffic and statistics through Splunk and New Relic.
```
TypeScript / React / Spring + AEM / New Relic / AEM / Splunk / Java
```

2021 - 2022 **Software Engineer** **FairSupply Analytics Pty Ltd.**
Developed a REST API using Django Rest Framework to replace an existing NoSQL database to improve referential integrity and scalability. The API integration was implemented within a legacy AngularJS application, and then containerized using Docker, with continuous integration through GitHub Actions. A Secure Development Lifecycle (SDLC) was used, along with Test Driven Development (TDD) approaches. The application was then deployed using AWS.
```
Django Rest Framework / Docker / Python / TDD / CI/CD / SDLC / AngularJS
```

2020 - 2021 **Casual Academic** **The University of Western Australia**
part time
Casual Academic for CITS3403 Agile Web Development and CITS3004 Cybersecurity. Teaching agile methodologies, Python3 web frameworks, and continuous integration and deployment techniques. Additionally teaching containerization through Docker, web vulnerabilities, white hat hacking, and cyber-attack prevention.
```
Python / Flask / Docker / Git / JS / PostgreSQL / CTFs
```

2019 – 2021 **Full Stack Engineer** **The Raine Study / UWA Centre for Software and Security Practice**
Project management system developed for the Raine Study, a scientific study collecting data over 30 years from a cohort of participants. I used agile methodologies with Python/Django back-end and JQuery front-end technologies, while deploying to AWS services such as EC2, RDS, and S3.
```
Python / Django / Bootstrap / Git / JS / AWS
```

| 2018 – 2019 | **Front-End Developer** | **Corporate Governance Risk Pty Ltd** |

User interface and user experience (UI/UX) development of software for BHP, PwC, and other companies using Ruby and React.

```
JS / Bootstrap / Redux / React / CSS / JSX
```

| 2017 – 2018 | **Software Intern** | **UWA Centre for Software and Security Practice** |

Full stack development of a variety of small apps for clients of UWA CSSP.

```
Python / Django / HTML / CSS
```

HIGHLIGHTS

Startup — **Archee - Agile Toolkit**

A set of agile tools built from my own personal experience working in agile teams. Existing tools were often pay-walled, or had very poor user experience. To overcome these issues, I designed and built a solution to the popular agile planning strategy Planning Poker, and extended this to an agile toolkit, Archee. These tools are used free of charge by hundreds of users every month.

```
NextJS / React / TypeScript / Vercel / AWS / Websockets / PlanetScale
```

Research — **Deep Learning for Information Extraction from PDF Tables**

Honours research project exploring deep learning methods for extracting tabular semantics from tables inside PDFs into a machine readable format using **TensorFlow** and **PyTorch**. The research allowed for older PDF documents and forms such as maintenance procedures and medical discharge letters independent of domain to be stored as JSON and standardised. The project surveys, implements, and integrates Computer Vision and Natural Language Processing techniques for table extraction and semantic relation identification. The research project was eventually published as a paper.

Wu, Haolin, et al. **Automatic semantic knowledge extraction from electronic forms.** *Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability (2022)*: 1748006X221098272.

Projects — **Various Projects**

Some projects completed over the years include machine learning web applications, customer oriented user interfaces and a variety of API integrations and data management pipelines. These projects are developed using Test Driven Development (TDD), Continuous Integration and Deployment (CI/CD), and DevOps principles. These projects can be viewed in detail within my portfolio.

```
https://www.haolin.dev
```

ACHIEVEMENTS

| 2022 | **Telstra Innovation Hackaton Semi-Finalist** | **Telstra** |

Developed a prototype concept for **Telstra Pay**, a product leveraging existing Telstra ecosystem resources to access the Buy now, Pay later market.

| 2022 | **Performance Review Commendation** | **Telstra** |

Scoring a perfect rating for Telstra's annual employee performance review

| 2020 | **Teaching Commendation** | **The University of Western Australia** |

For outstanding teaching in CITS3403, Agile Web Development

| 2018 | **Unearthed Hackathon Young Innovator Winner** | **Unearthed Solutions, Perth** |

Sponsored by BHP and Amazon AWS

| 2010-2014 | **Scotch College Dual Scholarship Recipient** | **Scotch College, Perth** |

Dual Scholarship Recipient in both Academics and Music

REFERENCES

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LANGUAGES

English - native
Chinese Mandarin - fluent

HOBBIES

Coding is an art to me. In my spare time I enjoy automating tasks in my day to day life, such as smart home integration and some custom Fintech. I also love playing piano, acrylic painting, swimming, and fishing.

NON PROFIT

I created **Archee**, an agile toolkit to help planning sprints, after identifying the need of a planning tool in my team. I created software to manage the **UWA Ethical Hacking Club**, allowing weekly events and notifications. Additionally I taught English to international students at **Melbourne University**.