

# Cooper Ellidge

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## EXPERIENCE

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### iO Energy

*Software Engineer*

*Sep 2023 – Now*

- Developed features for an internal energy retail sales platform, improving customer growth from 1000 to over 2000 customers and reducing sales agent errors, using React, Javascript, AWS, and Flask.
- Forecasted electricity demand and financial profit using Python, pandas, FB Prophet.
- Created microservices for handling customer signups, plan management, and sales commissions.
- Developed a full-stack app to calculate and reconcile financial contracts with AEMO market settlements.
- Used Snowflake data warehouse to integrate data ETL pipelines into BI and risk management dashboards.
- Designed and architected a new energy retail SaaS product using Django, React, Typescript, and Docker.

### Saab Australia

*Software Engineer*

*Jan 2023 – Aug 2023*

- Designed, developed, integrated and tested modules with for 9LV Combat Management System using Java, Vue, Typescript, and DDS in a MVVM software architecture.
- Presented new software capability to RAN customers during contract milestone demonstrations.

*Early Careers Lead*

*Sep 2022 – Aug 2023*

- Coordinated over 50 graduates and interns for Saab's Early Careers Programs, including developing the programs' strategic direction, determining rotations, providing mentorship, and organising events.
- Created an optimisation algorithm for team assignment, balancing business needs with graduate preferences.

*Graduate Engineer*

*Jan 2021 – Dec 2022*

- Using full-stack software engineering skills to deliver naval operator user interfaces and enhanced tactical capabilities for RAN's surface fleet.
- Created an internal Python package to model and analyse autonomous vehicle's algorithm performance.
- Conducted requirements analysis and designed hospital modules for Defence's deployable hospital (JP2060), receiving a company award nomination for critical effort in producing major contract deliverables.
- Designed mechanical components in collaboration with Swedish submarine team, for their submarine program.

*Undergraduate Engineer*

*Nov 2019 – Feb 2020*

- Prototyped and evaluated deep learning models using Python to improve environmental measurements using sensor data. The capability has since been successfully tested on-ship during sea trials.

### Centre for the Subatomic Structure of Matter, University of Adelaide

*Physics Summer Research Student*

*Jan 2019 – Feb 2019*

- Modelled experimental results for theoretical dark matter particles using a cloud supercomputer.

## PROJECTS

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**Wedding Site** | *React, Python, Material UI, AWS, Terraform*

- Created a site for my wedding, including passcode-protection, RSVPs, notifications, and Google Maps integration.

**Resume Repo** | 🌐 [github.com/cooperellidge/resume](https://github.com/cooperellidge/resume) | *LaTeX, GitHub Actions*

- Built a repo that compiles a resume (this one!) to PDF using GH Actions and deploys it to GH Pages.

## EDUCATION

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### University of Adelaide

*Bachelor of Engineering (Mechanical)(Honours) with*

*Feb 2016 – Nov 2020*

*Bachelor of Science (Mathematics and Theoretical Physics)*

*GPA 6.7/7.0*

## SKILLS

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**Languages:** Python, JavaScript, TypeScript, Java, HTML/CSS, SQL

**Tools, frameworks, and libraries:** React, Vue, Django, FastAPI, Streamlit, AWS, Terraform, Docker, Jenkins, pandas, NumPy, SciPy, Matplotlib, Plotly, keras, scikit-learn, FB Prophet, Snowflake, Dagster, DBT, Git, GitHub, Jira, BitBucket, Confluence, FeCru, Notion, Figma

**Software:** Creo Parametric, AutoDesk Inventor, SolidWorks, DOORS, Windchill, IFS, MATLAB, Simulink, ANSYS suite, COMSOL Multiphysics, Microsoft Office suite