HARRISON OGDEN-CARR

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Professional Profile

Python-focused Software & Machine Learning Engineer with a strong foundation in mathematics, scientific computing, and cloud development. AWS Certified Machine Learning Engineer Associate with hands-on experience building reproducible pipelines, automating workflows, deploying models, and developing backend systems. Currently completing Google's *IT Automation with Python* certificate, expanding expertise in Linux, Bash, TDD, OS-level automation, and robust scripting.

Certifications

• Google IT Automation with Python (in progress)

• AWS Certified Machine Learning Engineer – Associate (2025)

• IBM Artificial Intelligence Fundamentals (2025)

Technical Skills

- **Programming & Software Engineering:** Python, Bash, Linux, Git, GitHub, Unit Testing, TDD, OOP, Modular Design, Debugging, Automation, Regex.
- **Machine Learning:** Regression (Linear & Logistic), Decision Trees, k-Means, XGBoost, CNNs, Transfer Learning, Semantic Search, Feature Engineering, Model Training, Tuning & Evaluation, Deployment & Scaling
- **Scientific Computing:** Python (NumPy, pandas, SciPy, PyTorch, scikit-learn, seaborn, matplotlib), MATLAB, Jupyter Lab, Colab, VSCODE,
- **Cloud & Deployment:** AWS SageMaker, Glue (ETL), S3, Athena, EC2, Bedrock (Generative AI), Step Functions, EventBridge
- **Data Management:** Data Manipulation, Workflow Automation, Reproducible Pipelines, GitHub Projects
- **Web Development:** HTML, CSS, Django, Hosting & Deployment, Responsive Design, SEO optimisation, Domain forwarding
- **Other:** Workflow Automation, Reproducible Pipelines, GitHub Projects, Documentation, Statistical Analysis

Professional & Personal Skills

- **Communication & Presentation**: Skilled at explaining technical concepts clearly, tailoring detail for both technical and non-technical audiences
- **Leadership Potential**: Confident in guiding projects, setting direction, and supporting peers in collaborative environments
- **Teamwork & Collaboration**: Thrives in cross-functional settings, building trust and contributing to shared goals
- **Analytical Mindset**: Naturally curious, methodical, and resilient in approaching complex problems
- **Adaptability & Continuous Learning**: Quick to absorb new tools and frameworks; proactive in expanding expertise across ML, cloud, and web development
- **Creativity & Design Thinking**: Balances technical precision with design sensibility to deliver polished, user-focused solutions
- **Resilience & Problem-Solving**: Calm under pressure, persistent in troubleshooting, and committed to iterative improvement
- **Professionalism & Integrity**: Reliable, organised, and attentive to detail, with a strong sense of accountability

Education

Bachelor of Science (Physics)
The University of Melbourne, Parkville VIC — Graduated: 2022
• First Class Honours in Laboratory & Computational Physics
• Extensive quantitative analysis across diverse physics concepts
• Heavy use of Python (NumPy, pandas, SciPy) and Excel for computational work
• Coursework in advanced mathematics, providing a strong analytical foundation

PROFESSIONAL EXPERIENCE

Rosebank Engineering – Trades Assistant (Aircraft MRO)
Bayswater, VIC | Sep 2023 – Present
• Maintained compliance workflows and reproducibility through ERP systems.
• Supported tooling development and data traceability.

Healthways Recreation Centre – Swim School Coordinator & Trainer
Ringwood, VIC | Jul 2018 – Sep 2023
• Mentored and trained 20+ new staff and provided cross team updates.
• Managed data reporting, data organisation, timetabling, and statistical tracking for business.
• Scheduled, planned, and administered new programs.