

JAMES PAYNTER (PHD)

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ABOUT ME

I am a keen analyst looking to apply my knowledge and data science skills on real-world problems with tangible impacts. I have a history of publishing high quality research, and presenting technical work to researchers and laypersons. My success draws on finding insights where others have not, and making connections between seemingly unrelated fields. I am self-motivated and hard-working.

I have just returned from 6 months living in Colombia and Peru, working in biodiversity conservation and learning Spanish. I am seeking a permanent role that offers opportunities for continuous learning and professional growth.

Technical Skills Python (9 years: NumPy, SciPy, Pandas), machine learning (PyTorch & Keras), data annotation, Data science, Bayesian inference, Bayesian model selection, Monte Carlo simulations, XML, Linux & Linux for high-performance computing, git, AWS suite, Excel, Scientific writing, popular science writing, academic editing, L^AT_EX, Matplotlib, Sales, entrepreneurship, project management, staff management.

EXPERIENCE

Pavement Management Services

Warana, QLD (2022–2023)

Data Scientist

- * Worked on a ML solution for blurring number plates and faces in image data. I was strongly commended for my attention to detail during labelling, which resulted in excellent accuracy of the solution.
- * Led the data analysis which challenged the accreditation body and found that our surveys were more accurate than the national calibration.
- * Management and data warehousing of the 200TB (18 TB / year) of company data, uploading to AWS S3.
- * Led the implementation of ISO 27001 at the company to comply with cyber insurance standards.
- * **Skills:** AWS suite, SQL, computer vision, MLOps, image annotation, XML, PyTorch, staff management, stakeholder management, data analysis, data policy, IT policy and implementation.
- * **Direct reports:** six (GIS specialist, Data analyst × 2, IT × 2, Engineering grad).
- * **Qualifications** Agile Assets certified (asset management software).

University of Melbourne

Parkville, VIC (2017–2024)

Research Scientist

- * Published my research in the leading international journal Nature Astronomy, which is ranked in the top 0.03% of all articles: <https://www.nature.com/articles/s41550-021-01307-1/metrics>
- * Wrote and published the Python software package PyGRB: <https://github.com/JamesPaynter/PyGRB>
- * **Skills:** Public speaking, first principles thinking, data science, high performance computing, statistics, physics, astrophysics, academic writing.

Savimbo

Colombia / Peru (2024)

Research scientist & field scientist

- * Led a paper on quantifying biodiversity to help Savimbo become the first certified biodiversity credit scheme. Biodiversity crediting is a nascent \$180 billion market and the spiritual successor of the carbon market.
- * Lived in the Amazon rainforest for 2 months with Cofan tribe Elders.
- * **Skills:** Academic writing, rapid learning of a new discipline (biodiversity science).

Unku (E-commerce and retail wholesaler)

Melbourne, VIC (2024–present)

Founder and Director

- * Founded a company importing handmade alpaca knitwear from Peru to Melbourne.
- * Door-to-door sales: I approached stores in Melbourne and sold 50% of my stock within the first two weeks.
- * Met with various suppliers to find the right partner and product. Spent time understanding the alpaca shearing and wool-milling process and to get better wool prices. Negotiated wholesale prices and completion timelines.
- * **Skills:** entrepreneurship, extreme-ownership, self-motivation, sales, problem solving, project management, staff management, logistics, sourcing, invoicing, html, shopify.
- * **Direct reports:** one (marketing).

Carpentry & Construction

Noosa, QLD; Melbourne, VIC (intermittent, 2023–2024)

Various roles (Contract work & ABN)

- * Drove around to 40+ job sites to ask employers for work. Started the next day.
- * **Skills:** extreme-ownership, quoting, invoicing, *common sense*, teamwork, self-motivation.

University of Melbourne

Parkville, VIC (2017–2022)

Academic tutor

- * **Skills:** Computer vision, physics, mathematics, astrophysics, programming.

City of Yarra

Fitzroy, VIC (2013–2021)

Customer Services Officer

- * **Skills:** Sales, customer service, cash handling, time management.

EDUCATION

University of Melbourne

Parkville, VIC (2024)

Doctor of Philosophy (Ph.D), Astrophysics (research & applied data science).

University of Melbourne

Parkville, VIC (2018)

Master of Science (M.Sc), Astrophysics (research).

- * 6 month exchange to the University of Edinburgh.

University of Melbourne

Parkville, VIC (2016)

Bachelor of Science (B.Sc), Physics & Mathematics.

Diploma of Languages (D-Lang), Arabic.

John Monash Science School

Clayton, VIC (2012)

- * 2 month exchange to Turin, Italy.

MISCELLANEOUS

Consistent daily ashtanga yoga practice since 2017.

- * Dedicated to performing the same yoga routine day-in, day-out.
- * **Skills:** dedication, consistency

Best man at my brother's wedding.

- * Commended by 30+ guests for the best best man speech they had ever heard at a wedding. I still receive compliments on it from family friends and relatives one year on.
- * **Skills:** Public speaking.

Languages English (native), Spanish, Italian. Previously studied Arabic, Sanskrit, and Russian.

Interests AI, natural sciences, finance & investing, entrepreneurship, business analytics, mining, energy.

Hobbies Hiking, skiing, meditation, yoga, languages.