Owain West

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Owain is ideal for high-velocity roles, with particular expertise in data engineering, NLP, ethical AI, and end-to-end project delivery.

Experience

Beyond Identity | Data Engineer II   New York | May 2024-Present
- Building Rust/Kafka microservices for event processing at the core of BI's passwordless authentication platform.

TickPick | Data Engineer   New York | May 2022 - Present
- Led TickPick's Data Engineering initiatives using Snowflake, Databricks, and Azure ML; orchestrating data flows across thousands of tables.
- Transitioned from Airflow to Databricks ETL, lowering costs by over 70% while ensuring reliability and engineering efficiency.
- Led technical implementation of margin optimization pipe, impacting $200M+ inventory, boosting relative conversion rate by 10%.
- Automated pricing comparisons against 100k+ competitor listings daily, reinforcing company's "price dominance" strategy.
- Implemented Great Expectations and a data catalog for quality and governance, reducing errors by over 90%.
- Pioneered automated ticket transfers, reducing transfer time by 95%, and fundamentally enabling "autotransfer" app feature launch.
- Mentored junior engineers while managing 400+ data pipelines loading hundreds of millions of rows monthly.
- Integrated Snowflake with Azure ML via SQL from dbt, enabling data analyst access to ML features.
- Negotiated with ETL vendors, reducing annual costs by over 70% through strategic selection and cost-benefit analysis while retaining agility.
- Developed secure API endpoints for internal data access, enhancing security and compliance in analytical and operational data usage.
- Created Streamlit user interfaces for stakeholder data access, streamlining data-driven decision-making.
- Integrated MLflow with Azure ML and DVC, elevating MLOps by ensuring model consistency and enhancing reproducibility.

Thinknum Alternative Data | Jr Data Engineer   New York | Jan-Mar 2022
- Developed ETL pipelines for web data extraction, eg info on >5mil Stackexchange users. Authored ORM parsers for Schema.org metadata.
- Resigned due to ethical concerns over military data scraping during Ukraine conflict.

University of Waterloo | CS Teaching Assistant; CS 135, CS 245, CS 330 (3x). 1/sem.   Waterloo | Sep 2019 - Dec 2021
- Instructed business-relevant data engineering and analytics methodologies in CS 330, with focus on data modelling and orchestration.

Royal Bank of Canada, Toronto Innovation Lab | Software Engineer Summer Hire   Toronto | May-Aug, 2017-2019
- Patented NLP and computer vision system for financial document analysis: `https://patents.google.com/patent/US11403465B2/en`.
- Developed natural-language interface for RBC market research, facilitating cross-vertical collaborations.
- Designed proof-of-concept conversational interfaces for onboarding and benefits selection, ultimately refined and adopted company-wide.

University of Pennsylvania | Head Teaching Assistant; LGIC 010   Philadelphia | Jan-May, 2017-2019
- Coauthored course **textbook** (free at `https://cis.upenn.edu/~weinstei/PQT.pdf`). Led TA team and curriculum development.

University of Pennsylvania | Senior Information Technology Advisor   Philadelphia | Sep-May, 2015-2017
- Managed and trained other ITAs, led onboarding, and directed escalation. Solved network and security problems for university members.

UPenn Student Federal Credit Union | Supervisory + Information Systems Committees   Philadelphia | Sep-May, 2016-2018
- Conducted regular audits for Federal banking compliance. Advised on the SFCU's digital infrastructure and web presence.

Bridge: Freshman Mental Wellness | Founder, Co-President   Philadelphia | Sep 2015 – May 17
- Founded and led Bridge, a student organization at UPenn that provided peer-based mental health support.

Education

University of Waterloo | MMath | Computer Science   Waterloo | Sep 2019 - Dec 2020
- **Selected graduate coursework,** $\geq 90\%$ **(equiv. A+) grade: Fairness, Accountability, and Transparency in Machine Learning**; **Machine Learning in Proteomics**; Automatic Sequences; Computer-Aided Verification

University of Pennsylvania | BA, Magna Cum Laude | Triple Major   Philadelphia | Sep 2015 - May 2019
Logic, Information, and Computation; Computer Science; Philosophy and Science
- **Selected graduate coursework,** $\geq$ **A grade:** Logic and Computability; **Networked Systems**; Topology; Finite Model Theory
- Was selected as LGIC (Logic, Information, and Computation) departmental Convocation flagbearer in recognition of academic standing.

Expertise

- **Languages, Tools, and Clouds**: Julia, Python, SQL, NodeJS, C, K, OCaml, Java, Kotlin, Rust, • AWS, Azure, GCP • Docker, Kubernetes, Helm, Terraform, Kafka, Grafana
- **NLP**: LLMs, GPT, BERT, NLTK, spaCy, Conversational Design
- **AI/Machine Learning**: Pandas, NumPy, PyTorch, scikit-learn, Flux (Julia), Kubeflow, DVC, MLFlow, Spark, OpenCV, YOLO
- **Ethical AI**: ML fairness and dynamics (see `https://owainwest.com/fairness_dynamics.pdf`), LLM safety, Fairlearn, Fairness360
- **Data Engineering and Analytics**: Airflow, Dagster, dbt, Snowflake, Spark, Singer.io, Airbyte, ADF, GraphQL, PostgreSQL, Redis, Streamlit, Looker, Superset
- **Misc**: **Web Development**: Django, Flask, React, FastAPI • **Conversational interfaces** Dialogflow, Alexa • **Proteomics**: Applied LLMs (eg alphafold), BLAST, Uniprot • **Formal methods**: TLA+, Lean4 • **Business systems** Adjust, Iterable, Zendesk • **Other** Technical writing, LaTeX, Pandoc