Owain **West**

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A sharp analytical mind and strong communicator, Owain is ideal for technically, intellectually, and interpersonally demanding roles.
See **owainwest.com** to learn more.

Experience

TickPick | Data Engineer   *New York | May 2022 - Present*

- Leading TickPick's Data Engineering initiatives, expertly architecting and implementing solutions to efficiently orchestrate data flows through the organization. Engaged in regular strategic discussions with C-level leadership, providing valuable insights to shape data strategy.
- Mentoring direct report Jr. Data Engineer, and serving as the leading technical resource within the Data team with exceptional proficiency.
- Leading operation of critical data infrastructure including **Airflow** and **Snowflake**. Developed complex data and **MLOps** flows integrating these tools with other platforms such as **Azure ML**, **dbt**, **Databricks**, and **Looker**, leveraging **Azure Functions**, **Docker** and **Kubernetes** deployments.
- Architected and developed over 250 data and MLOps pipelines, leveraging cutting-edge tools to tackle intricate data sources. Eg automated the integration of detailed Apple "App Store Connect" referrer data, which is inaccessible through the documented API.
- Developed a Snowflake external function integration enabling seamless access to **ML** and **NLP** capabilities directly within SQL-based data tooling such as SnowSQL and dbt. Wrote and deployed unsupervised learning techniques (e.g., GMMs, KMeans), supervised learning algorithms (e.g., KNeighbors, regressors), and standard NLP utility functionality (e.g., document similarity, NER, and tagging).
- Architected novel process to automate acceptance of externally delivered tickets, enabling high-value "autolist" application feature.
- Directed contacts with multiple SaaS vendors, and consolidated tooling, resulting in >50% savings in expected spend while improving reliability.

Thinknum Alternative Data | Junior Data Engineer   *New York | Jan-March 2022*

- Built dozens of ETL pipelines for extraction of open web data, including eg. to ingest detailed info on >5mil top Stackexchange users.
- Authored library for automated creation of fuzzy parsers for Schema.org metadata, enabling hugely general extraction of open web data.
- Elected to resign on ethical grounds after being asked to scrape military-related data to sell, and before the company failed to pay its employees.

University of Waterloo | CS Teaching Assistant   *Waterloo, CAN | Sep 2019 - Dec 2021*

CS 135 (Design of Func. Programs), CS 245 (Logic + Computation), CS 330 (Management Info Systems). 1/sem.
- Responsible for grading assignments and exams, communicating feedback effectively to students, and giving input for course development.

University of Pennsylvania | (Head) Teaching Assistant   *Philadelphia | Jan-May, 2017-2019*

LGIC 010 (Intro Formal Logic – TA 2017, Head TA 2018+2019); CIS 160 (Discrete Math for CS – TA 2018)
- For LGIC 010: coauthored an introductory **textbook** for use in class. As Head TA in 2018, 2019: lead other TAs and helped develop curriculum.
- For both: taught weekly recitation and office hour sessions, graded evaluations, and communicated feedback about course development.

Royal Bank of Canada, Toronto Innovation Lab | Software Engineer Summer Hire   *Toronto, CAN | May-Aug, 2017-19*

- **2019**: Continued development of conversational applications for Alexa and Google Home, including production versions of previously instigated PoCs. Developed pipeline for automated evaluation of semantic quality of text summarizations. Recieved **patent**: `https://patents.google.com/patent/US11403465B2/en`. • **2018**: Designed + developed multiple conversational application PoCs. Interviewed external software firms to join internal projects. Trained deep learning **NLP** functionality for use in conversational and data-insight applications, including for text classification, topic modelling, and custom named-entity-recognition models. Developed a machine-vision based table parser. • **2017**: Designed and built a chatbot to automate developer onboarding. Championed development of internal Alexa/Google Home applications.

UPenn Student Federal Credit Union | Supervisory + Information Systems Committees   *Philadelphia | Sept-May, 2016-2018*

- Enacted regular audits to comply with Federal regulations. Troubleshot and consulted on the SFCU's digital infrastructure and web presence.

Bridge: Freshman Mental Wellness | Founder, Co-President   *Philadelphia | Sep 2015 – May 2017*

- Founded and lead Bridge, a student organization at UPenn that provided peer-based mental health support for freshmen.

University of Pennsylvania | (Senior) Information Technology Advisor   *Philadelphia | Sep-May, 2015-2017*

- Solved network and security problems for university members. As senior ITA in Sept-May 2016-17, directed and taught other ITAs.

Skills

- **Personal**: Communication • Analytical Reasoning • Quantitative thinking • Leadership • Empathy • Teamwork • Independent work • Research
- **Languages**: Julia • Python • SQL • NodeJS • K • OCaml • Rust • Java • TLA+ • Lean 4 • **Clouds**: AWS, Azure, GCP • **NLP**: NLTK, spaCy, BERT, GPT
  Machine Learning and Data Science: Pandas, NumPy, PyTorch, scikit-learn, Keras, Tensorflow, Flux (Julia), Spark, ML Ethics • **ELT/ETL/Data Engineering** Airflow, Dagster, dbt, Fivetran, Hightouch, Stitch, Airbyte, Azure Data Factory, Azure Functions, AWS Lambda, Azure Container Services, GCP Cloud Functions, GCP Pub/Sub, Kafka • **Data Warehouse**: Snowflake, BigQuery • **SQL&NoSQL**: PostgreSQL, Redis, MongoDB • **Dashboard**: Looker, Tableau • **Deployment/CI+CD**: Docker, Kubernetes, Azure DevOps, Github Actions • **Web framework**: Django, Flask, React • **Proteomics**: Language models, BLAST, Uniprot • **Other**: Unix, Git, Bash, Powershell, Alexa, Dialogflow

Education

University of Waterloo | MMath in Computer Science   *Waterloo, CAN | Sep 2019 - Dec 2020*

- **Selected graduate coursework, $\geq 90\%$ (equiv. A+) grade:** Advanced Topics in AI (**Fairness, Accountability, and Transparency in ML**); Adv. T. in Bioinformatics (**Machine Learning in Proteomics**) Adv. T. in Algos. and Complexity (Automatic Sequences); Computer-Aided Verification

University of Pennsylvania | BA, Magna Cum Laude   *Philadelphia | Sep 2015 - May 2019*

3 Majors, in: Logic, Info., and Computation; Computer Science; Philosophy and Science

- **Selected graduate coursework, $\geq$ A- grade:** Intro Logic and Computability; Topics in Logic (Modal Logics); Topics in Logic (Set Theory); Differential Geometry; Networked Systems; Topology; Finite Model Theory and Descriptive Complexity; Topics in Cosmology (Galactic Dynamics)
- Was selected as LGIC (Logic, Information, and Computation) departmental Convocation flagbearer in recognition of academic standing.