

# Owain West

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A sharp analytical mind and strong communicator, Owain is an ideal candidate for technically, intellectually, and interpersonally demanding roles. See [owainwest.com](https://owainwest.com) to learn more.

## Experience

### TickPick | Data Engineer

New York | May 2022 - Present

- TickPick's single Data Engineer, responsible for architecting and building cloud data infrastructure to orchestrate data flows across the organization. In regular discussion with C-level leadership to inform data strategy, and in close collaboration with Analytics and Growth team members.
- Leading operation of our **Airflow**, **Snowflake**, **Azure Data Factory**, **Fivetran**, **Hightouch**, and **Stitch** deployments, and building data flows with those and other tools. Managing all ingest and egress from our Snowflake deployment in service of a number of business deliverables and areas, including dashboarding, growth marketing, and predictive modelling.
- Built and maintaining >150 pipelines leveraging modern Airflow 2.4+ features, many involving nontrivial data sources, targets, or processes. Eg automated integration of detailed Apple "App Store Connect" referrer data not available via ASC's publicly documented API.

### Thinknum Alternative Data | Junior Data Engineer

New York | Jan-March 2022

- Built ETL pipelines for extraction and ingest of open web data. Worked with Redis, PostgreSQL, BeautifulSoup, Selenium, Django, Gremlin, to build a scalable system for data procurement. E.g.: built pipeline to ingest detailed info on >5mil top Stackexchange users.
- Authored library for automated creation of bespoke Python parsing and handler classes for JSON+Id/RDFa/microdata that loosely matches Schema.org schemata, enabling hugely more general extraction of financially relevant open web data compared to previous internal technique.
- Implemented DevOps and testing requirements, including BlazeMeter and NewRelic monitoring.
- Elected to resign on ethical grounds after I was 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 created within natural-language dialog systems.
- 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; provisional patent was received for resulting work.
- 2017: Designed and built a chatbot to automate developer onboarding process. Championed internal research and development of experimental Alexa/Google Home products.

### UPenn Student Federal Credit Union | Supervisory + Information Systems Committees

Philadelphia | Sept-May, 2016-2018

- Enacted regular audits to comply with Federal regulations. Troubleshoot 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 developed 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, oversaw and coached other ITAs.

## Skills

### Personal

- **Strong:** Communication • Analytical Reasoning • Quantitative thinking • Leadership • Empathy • Teamwork • Independent work and research • Emotional intelligence • Adaptability • Drive to succeed • Problem-solving • Visual and verbal thinking • Teaching ability • Presentation ability

### Technical

- **Languages:** Julia • Python • SQL • NodeJS • K • OCaml • Rust • TLA+ • Lean 4
- **Clouds:** AWS, Azure, GCP • **ELT/ETL/Data Engineering** Airflow, Prefect, dbt, Fivetran, Hightouch, Stitch, Azure Data Factory, Azure Functions, AWS Lambda, Azure Event Hubs, GCP Cloud Functions, GCP Pub/Sub, Kafka, REST APIs, Great Expectations • **Data Warehouse:** Snowflake, BigQuery • **SQL&NoSQL:** PostgreSQL, Redis, MongoDB • **Dashboard:** Looker, Tableau • **Machine Learning and Data Science:** Pandas, NumPy, PyTorch, Tensorflow, Keras, Flux (Julia), Spark, ML Ethics • **NLP:** NLTK, spaCy, BERT • **Dialog system:** Alexa, Dialogflow • **Proteomics:** Language models, BLAST, Uniprot • **Web scraping:** Requests, Selenium, Puppeteer, BeautifulSoup, Scrapy, Apify • **Deployment/CI+CD:** Docker, Kubernetes, Azure DevOps, Github Actions • **Web framework:** Django, Flask, React • **Other:** Unix, Git, Bash, Powershell, Pandoc,  $\LaTeX$ , Iterable

## 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 by LGIC (Logic, Information, and Computation) department head as the departmental flagbearer for convocation.