

Ian Tincknell

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PROFESSIONAL EXPERIENCE

National Grid, New England Field Safety and Health

INTERN, DATA ANALYST May–Aug 2025

- Designed and shipped an end-to-end Power BI reporting system with automated daily refresh, replacing manual Excel workflows and enabling consistent operational monitoring for leadership.
- Built a data ingestion and transformation pipeline using OData sources and Power Query, modeling longitudinal employee health events to support cohort-based trend analysis and drill-down views.
- Developed validated measures and privacy-aware reporting logic, then delivered a live executive demo and handoff documentation for long-term maintenance by full-time analysts.

University of Massachusetts Amherst, Institute for Applied Life Sciences

BUSINESS INNOVATION FELLOW 2022–2024

- Built repeatable analytics workflows for startup teams, translating ambiguous market questions into structured datasets, comparative scoring criteria, and decision-ready outputs.
- Led iterative research sprints for a machine-learning startup in water resource planning, producing a prioritized target list and CRM-ready segmentation to streamline business development.
- Led a team initiative to define and operationalize generative AI usage guidelines, presenting training to approximately 40 fellows and delivering an adopted handbook for future cohorts.

EDUCATION

UNIVERSITY OF MASSACHUSETTS AMHERST

AMHERST, MA

Manning College of Information and Computer Sciences

Master of Science in Computer Science (MSCS) 2026

- Certificate: Statistical & Computational Data Science
- GPA: 3.95/4.00 • Full Graduate Assistantship

Isenberg School of Management

Master of Business Administration (MBA) 2024

- Business Innovation Fellowship, Institute for Applied Life Sciences
- GPA: 4.00/4.00 • Full Graduate Assistantship

College of Social and Behavioral Sciences

Bachelor of Arts in Political Science 2014

TECHNICAL SKILLS

Languages: Python, SQL, C++, C, R; familiarity with Java, JavaScript, TypeScript, React, Rust

Backend & APIs: FastAPI, REST APIs, gRPC, Protocol Buffers, SQLAlchemy, PySpark

Data Platforms: PostgreSQL, SparkSQL, SQLite, ETL pipelines, Redis, Qdrant

Infrastructure: Docker Compose, Nginx, Azure CLI, AWS Lambda, AWS Bedrock, AWS API Gateway

ML & AI Systems: PyTorch, TensorFlow, scikit-learn, embedding models, semantic search

Professional: team leadership, stakeholder communication, cross-functional collaboration

PROFESSIONAL EXPERIENCE (CONT.)

Commonwealth of Massachusetts, MassHealth

LONG-TERM CARE ELIGIBILITY SPECIALIST 2015–2022

- Managed a rolling caseload of long-term care applications under strict deadlines, reviewing complex financial records to determine Medicaid eligibility and compliance.
- Built Excel-based templates and calculators adopted by the team to improve processing speed and accuracy for recurring compliance workflows.

LEADERSHIP & CAMPUS INVOLVEMENT

UMASS AMHERST GRADUATE STUDENT GOVERNMENT (GSG)

Vice President 2025–2026

- Coordinated logistics and operations for graduate community events and initiatives.

Treasurer 2024–2025

- Oversaw a \$1M+ graduate student trust fund and annual budget process, ensuring accurate tracking and policy-compliant disbursement.
- Designed and operated an airport transportation program supporting 300+ arriving international students with real-time delay monitoring and contingency planning.

AWARDS

- **Lifetime Achievement Award**, UMass GSG – 2026
- **President’s Outstanding Impact Award**, UMass GSG – 2025
- **Student Leader of the Month**, UMass Amherst – November 2024

PROJECTS

Reverse Wiktionary

ian-tincknell.com/blog/reverse-wiktionary/

- Built and deployed a semantic dictionary search application using embedding-based vector search over 3.8M+ embedded Wiktionary definitions.
- Developed a full-stack retrieval system using FastAPI, Qdrant, Redis, Nginx, Docker Compose, Azure Virtual Machines, and Cloudflare Tunnel, with a separate offline pipeline for large-scale ETL, embedding generation, and durable vector artifact management.

Dracula

ian-tincknell.com/blog/dracula-lives/

- Built and deployed a six-round browser card game with a deterministic Python engine, React frontend, and FastAPI service on AWS Lambda behind API Gateway.
- Designed a stateless API to reconstruct games from seed and move history, allowing serverless deployment on AWS Lambda while Amazon Bedrock generates immersive opponent dialogue.
- Developed an information-set UCT search to generate data used to train PyTorch neural opponent.

MusicBrainz Query Server

github.com/itincknell/musicbrainz-query-server

- Developed a query-oriented service layer over a local MusicBrainz PostgreSQL mirror, generating and executing parameterized Spark SQL queries through PySpark for structured retrieval tasks.
- Built a gRPC API for long-running queries using asynchronous job IDs, status polling, and reliable result retrieval with concurrency-safe in-memory tracking and automatic TTL cleanup.