

# SEAMUS COYNE

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## EDUCATION

**Northeastern University | Khoury College of Computer Science**

**Boston, MA**

*Bachelor of Science in Data Science and Behavioral Neuroscience*

*December 2026*

**Honors and Awards:** Torch Scholarship, Dean's List

**Relevant Coursework:** Machine Learning, Discrete Structures, Advanced Programming with Data, Database Design, Calculus, Genetics, Neurobiology, Organic Chemistry, General Chemistry

## RELEVANT EXPERIENCE

**Canadian Imperial Bank of Commerce, US Risk Technology**

*New York, NY – Software Engineering Co-op*

*July 2025 – December 2025*

- Built and deployed enterprise-scale ETL infrastructure and pipelines driving AML, Compliance, and stress testing systems for a \$70B financial institute, enhancing data integrity across the firm's modernization effort.
- Implemented parameter validation, dynamic data checks, and error-handling mechanisms to safeguard pipeline accuracy, reducing failure cases and improving overall system reliability and transparency.
- Designed and implemented QA testing processes to streamline regression testing and establish a reusable framework for ongoing and future development initiatives.
- Partnered with business stakeholders to deliver modernized, scalable applications using Power Platform and Databricks, aligning technical solutions with evolving operational needs.

*Chicago, IL – Software/Power Platform Development Co-op*

*July 2024 – January 2025*

- Automated SEC 13F reporting processes, reducing annual manual effort from 280 hours to ~5 hours and increasing compliance accuracy by eliminating manual entry risk.
- Implemented team-wide Git-based source control for Power Platform solutions, enabling CI/CD integration and improving multi-developer collaboration across large-scale projects.

**Khoury College of Computer Science, Boston, MA – Teaching Assistant**

*August 2023 – April 2024*

- Collaborated closely with professor and coordinators to teach Programming with Data to over 500 students enrolled in multiple sections, fostering effective communication and teamwork in an educational setting.
- Hosted weekly office hours and practicum/lab sessions to assist students with difficult or challenging material, placing emphasis on communicating complicated technical concepts in an accessible manner.

## SKILLS & CERTIFICATIONS

**Certifications:** Microsoft AZ-900: Azure Fundamentals

**Languages & Tools:** Python, MySQL, Apache Spark, Talend, Power Platform, CSS, SPSS, Qualtrics,

**Platforms:** Azure, Databricks, Git, Confluence, Jira, ServiceNow, Windows, MacOS

**Methodologies:** Agile/Scrum, Technical Writing, Cross-Functional Collaboration

## RESEARCH & PROJECTS

**Context Travel Planning Web App**

*May 2024 – June 2024*

- Engineered front- and back-end components using MySQL, Flask REST APIs, and Streamlit to enable dynamic user interaction and personalized travel recommendations.
- Built, trained, and tested regression and cosine similarity models based on user data; designed wireframes, user stories, and components tested through a CI/CD pipeline.

**Biolink Interactive Dashboard**

*November 2023 – April 2024*

- Developed a dashboard to display DisGeNet and gene ontology (GO) disease, gene, and annotation connections, furthering bioinformatics research abilities using Python, SQL, and custom API wrappers.
- Conducted faculty-mentored research, collaborating with a professor and team to design and implement databases, API tools, and wrappers to streamline interface production; presented at RISE 2024 research expo.

## SPECIAL INTERESTS & ACTIVITIES

Applied machine learning, enterprise automation, bioinformatics visualization, travel and cultural exploration, first-generation student advocacy and support.