

# Daniel A. Crawford

<https://daniel-crawford.github.io/>

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## Experience

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### Optimal Dynamics

New York, NY – Remote in Pittsburgh, PA

#### Data Analyst, Solutions Engineering

Aug 2022 – Dec 2023

- Discovered over \$10 million in client profit gains from a state-of-the-art AI Decision analysis model
- Optimized time-to-delivery of those profits from 4 weeks to 3 days with automated analytics and data pipelining
- Built client trust and fidelity through model explanation and knowledge transfer
- Designed the JIRA board and coordinated the demonstration

### phData, Inc.

Minneapolis, MN – Remote in Pittsburgh, PA

#### Data Engineer

April 2022 – Aug 2022

- Built and optimized data pipeline for a municipal energy company experiencing increased demand
- Fed data into analytics products to reduce infrastructure expenditure

### Department of Defense, Department of the Army

Ft. Lee, VA

#### Operations Researcher/Systems Analyst, SMART Intern

July 2020 – April 2022

- Built an automated analytics library for optimizing sustainability operations
- Created research article search engine and text summarized to facilitate research direction and speed
- Led data science effort for the creation of metrics and insights from a discrete event simulation model
- Developed analytics dashboard for Army Generals to predict and apportion spending on projects and research domains

## Education

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### Master of Art in Linguistics

Pittsburgh, PA

University of Pittsburgh, Dietrich School of Arts and Sciences

April 2024

### Master of Science in Computer Science – Machine Learning

Atlanta, GA

Georgia Institute of Technology, College of Computing

April 2023

### Master of Engineering in Industrial Engineering

Las Cruces, NM

New Mexico State University, College of Engineering

May 2022

### Bachelor of Science in Mathematics with Honors (B.Phil)

Pittsburgh, PA

University of Pittsburgh, Dietrich School of Arts and Sciences, Minor: Linguistics

April 2020

## Significant Projects

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### University of Pittsburgh Graduate Artificial Intelligence Innovation and Networking Series

Writing, editing, and producing content on the impact and importance of AI in academia and society

### Lexical Access Prediction and Role of Semantic Embeddings

Using state-of-the-art Natural Language Processing techniques, discovered a key feature of the cognitive processes of language that can be applied in any text-based language data system

### Part-time Faculty, Department of Mathematics, University of Pittsburgh

Designed and Taught Mathematics courses for Business, Science, and Engineering students

## Professional Skills

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Python, R, pyTorch, Tensorflow, pandas, genism, spaCy, nltk, Agile, Java, SQL, CI/CD, Snowflake, AWS

Machine Learning (ML), AI, NLP, Optimization, Operations Research, Logistical Analysis, Systems Analytics, Modeling and

Simulation, Automated Analytics, KPIs, Modernization, Pipelines, Dashboards, Presentations, KTs