

# Daniel A. Crawford

Website + Portfolio: <https://daniel-crawford.github.io/>  
daniel.a.crawford2021@gmail.com • (412) 339 – 9328  
567 S Negley Ave., Unit 13 Pittsburgh, PA 15232

## Experience

---

### Optimal Dynamics

New York, NY – Remote in Pittsburgh, PA

#### Data Analyst, Solutions Engineering

August 2022 – December 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 engineering
- Designed the JIRA board and coordinated customer demonstration
- Built client trust and fidelity through model explanation and knowledge transfer

### phData, Inc.

Minneapolis, MN – Remote in Pittsburgh, PA

#### Data Engineer

April 2022 – August 2022

- Built and optimized an automated 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

July 2020 – April 2022

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

## Education

---

### Master's in Linguistics

MA - University of Pittsburgh, Dietrich School of Arts and Sciences

Pittsburgh, PA

April 2024

### Master's in Computer Science – Machine Learning

MS - Georgia Institute of Technology, College of Computing

Atlanta, GA

April 2023

### Master's in Industrial Engineering

MEng - New Mexico State University, College of Engineering

Las Cruces, NM

May 2022

### Bachelor's in Mathematics with Honors

BS/BPhil - University of Pittsburgh, Dietrich School of Arts and Sciences

Pittsburgh, PA

April 2020

## Significant Projects

---

### 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

---

**Languages:** Python, R, Java

**Libraries:** pytorch, Tensorflow, pandas, genism, spaCy, nltk,

**Technologies:** AWS, CI/CD, Snowflake, Machine Learning (ML), AI, Natural Language Processing (NLP), Operations Research