

# Tyler Ganter

## SUMMARY

Senior AI engineer with 8+ years building production ML systems. Currently leading development of the GenAI platform for a national lab.

## EXPERIENCE

### AI Engineer – Sandia National Lab

December 2023 – PRESENT | Albuquerque, NM

- ⇒ Founded the ATLAS Team delivering the production AI solutions and infrastructure across Sandia's mission areas. We currently support 1000+ end users, 300+ developers and 70+ unique projects.
- ⇒ Received ERA (see recognitions), now presenting AI strategy to laboratory directors due to accomplishments with ATLAS.
- ⇒ Delivered LLM app on secure network in just 5 months – now actively supporting the AI national security memorandum.
- ⇒ Architected modular GenAI applications and integrated vector search with bespoke access control logic.
- ⇒ Top-3 InnerSource contributor across entire lab (>14K).

### Machine Learning Engineer – Sandia National Lab

September 2020 – December 2023 | Albuquerque, NM

- ⇒ Led development of document classification system, reducing review effort by 80% in secure environments. Engineered deployment processes for secure offline ML systems.
- ⇒ Conducted ML uncertainty quantification (UQ) research, developing novel framework and STUQO library for applied UQ.
- ⇒ Designed production ML curriculum for 75+ summer interns across three cohorts and led AI training program for lab personnel. Championed MLOps best practices as product ambassador for Weights & Biases.

### Lead Instructor – 2U, Inc.

November 2021 – March 2022 | Remote

- ⇒ Data Analytics and Visualization Bootcamp

### Machine Learning Engineer – Voxel51

January 2019 – August 2020 | Ann Arbor, MI

- ⇒ Spearheaded design and development of a NoSQL-backed Python package for efficient exploration and management of large-scale ML datasets. I remain a top-5 contributor after 5 years of inactivity.
- ⇒ Led team fine-tuning and productionizing automotive vision models. Achieved state-of-the-art performance: 95% F1-Score.
- ⇒ Contributed to full-stack development of an interactive data analysis web application.



(518) 760-2220

tyler.h.ganter@gmail.com

tylerganter.com

## EDUCATION

### M.S. Electrical and Computer Engineering

University of Washington

2014 – 2016 | Seattle, WA

GPA: 3.7/4.0

### B.S. Electrical Engineering

University at Buffalo

2009 – 2013 | Buffalo, NY

GPA: 3.9/4.0

## SKILLS

Machine Learning  
Agile Project Management  
MLOps Git FastAPI  
Computer Vision  
Python Docker  
Transformers  
Large Language Models  
RAG Vector Databases  
Government Advisory  
LangChain AI Consulting  
Uncertainty Quantification

## RECOGNITIONS

### Employee Recognition Award

Individual Technical Excellence (2024)

For technical leadership role in developing cutting edge generative AI tools.

Awarded to <0.1% of entire lab.

### Employee Recognition Award

Team Excellence (2024)

## EXPERIENCE — CONT'D

### Computer Research Engineer – Sandia National Lab

June 2016 – June 2017 | Albuquerque, NM

⇒ Developed a novel approach to seismic event detection which nearly tripled true positive:false alarm ratio.

⇒ Developed seismic signal classification system using statistical signal processing and machine learning approaches.

## PUBLICATIONS

### Improving and Assessing the Quality of Uncertainty Quantification in Deep Learning

Adams et al., OSTI 2023

⇒ Developed novel Bayesian uncertainty framework for ML classification.

⇒ Created STUQO toolkit implementing systematic evaluation procedures and metrics. Motivated as pragmatic solution to challenges faced in past ML projects: CT scan segmentation and radioisotope classification.

### Alternative Null Hypothesis Correlation: A New Approach to Automatic Seismic Event Detection

Ganter et al., BSSA 2018

⇒ This novel method creatively applies supervised learning to traditional techniques for dramatically improved results.

## CERTIFICATIONS

Deep Learning

Machine Learning in Production

IBM Scalable Data Science

Google Cloud Platform

Google Project Management

## LANGUAGES

English – Native

Italian – Proficient

## VOLUNTEERING

Animal Human NM Dog Walker

## PASSIONS

Climbing – Travel

Music – Mindfulness