

# Logan Bolton

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## EDUCATION

**Auburn University**  
**B.S. in Computer Science, Minor in Statistics**

Expected Graduation: May 2026  
GPA: 3.8

## TECHNICAL SKILLS

**Languages:** Python, JavaScript, C#, SQL, HTML/CSS  
**Frameworks/Libraries:** PyTorch, Pandas, Scikit-learn, Matplotlib, ASP.NET, NodeJS  
**Tools:** Linux, Git, Docker, AWS, Azure  
**Certifications:** Azure Fundamentals (AZ-900) – Microsoft Certification in Cloud Computing

## EXPERIENCE

### Machine Learning Engineer Intern

Summer 2025

*Corvid Technologies*

*Huntsville, AL*

- Developed a transformer based model to predict radar cross section (RCS) responses for 3D objects in high fidelity physics simulation software with 27% less prediction error than previous in-house methods.
- Deployed models to company servers with a user friendly graphical interface built with Gradio to allow users to run and view the results of models without any technical knowledge.
- Built a scalable data pipeline using Numpy and PyArrow to process terabytes of raw simulation data to enable the training of future physics simulation models.

### Undergraduate Researcher

June 2024 – Present

*Dr. Nguyen's Artificial Intelligence Lab*

*Auburn, AL*

- First-authored a paper on using prompt engineering to reduce the hallucination rate of LLMs while also improving human interpretability through self-citing model responses (pending peer review).
- Trained linear probe models on open-source multimodal model embeddings (CLIP, SigLIP, LLaVA and Phi3.5) to explain the decisions of black-box models.

### Full Stack Web Developer Co-Op

August 2022 – August 2024

*Campus Web Solutions*

*Auburn, AL*

- Improved systems serving 100,000+ users, including Auburn's Football Ticketing System and SGA Voting System.
- Modernized legacy ASP.NET Web Forms applications, significantly accelerating feature development.

## PROJECTS

### Wordle Reinforcement Learning Agent | *LLMs, Reinforcement Learning, PyTorch* | [Link](#)

2024

- Finetuned an open-source LLM and trained with reinforcement learning to improve the model from only being able to complete 0.1% of Wordle games to successfully completing 18% of games.
- Discovered and fixed a memory leak bug in ByteDance's open-source reinforcement learning training framework *verl* in order to train a model efficiently.

### Spotify Playlist - AI Cover Generator | *Django, AWS, Generative AI* | [Link](#)

2024

- Developed an AWS-hosted Django webapp, leveraging Spotify's official API and multiple AI models to automatically create visual representations of users' Spotify playlists.
- Created a program to summarize playlist metadata using the Spotify API and used this information to have an LLM prompt a diffusion image model for a stylistically similar playlist cover.

### Twitter Disaster Prediction Model | *BERT, PyTorch* | [Link](#)

2024

- Finetuned a BERT model to identify Tweets referencing real world disasters.
- Achieved top 10% performance on a Kaggle competition with 83% accuracy.

## PUBLICATIONS

### VLMs are Blind: Failing to Translate Detailed Features into Words

2024

*Oral Presentation - Asian Conference on Computer Vision 2024*

- First authored a paper in ACCV (5.6% acceptance rate) examining how and why state of the-art vision language models like ChatGPT fail on extremely simple visual tasks.
- Cited by over 100+ researchers and featured by [OpenAI](#), [TechCrunch](#) and [Ars Technica](#).