# Caleb Bradshaw

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### **EDUCATION**

# **Brigham Young University** — *Senior* Computer Science (*Major*) Mathematics (*Minor*)

September 2019 - December 2025 (Expected)

GPA: 4.0

ACT: 35 (Composite) | GRE: 170 Verbal

### **EXPERIENCE**

## **Covr** — Software Engineer Intern

April 2024 - September 2024

- Designed, developed, and deployed GoLang microservices from concept to production, streamlining notification management
- Leveraged k-d trees in Python simulation to model nursing agency market

## **IDeA Labs**, BYU — Research Assistant

January 2024 - Present

#### **RESEARCH**

Bradshaw, C., Miller, C., & Warnick, S. (2024). *LLM Generated Distribution-Based Prediction of US Electoral Results, Part I.* arXiv:2411.03486.

 Introduced a novel approach to using Large Language Models as predictive tools using output token probabilities as distributions

DeBuse, M., Miller, C., Bradshaw, C., & Warnick, S. *Taking the Derivative of a Story: A Novel Approach to Fiction Scene Segmentation*. Accepted for publication in Association for Computational Linguistics.

 Designed, trained, and deployed a neural network to process embedded text as a signal for processing of story structures

### **PROJECTS**

## **StyleCanvas** — *stylecanvasai.com*

- Architected full-stack platform to host third-party AI models using AWS EC2, Cognito, DynamoDB, and Stripe
- Created auto-scaling system to optimize model serving cost
- Implemented auth and subscription management with NestJS

### **PROGRAMMING LANGUAGES**

GoLang

JavaScript/TypeScript

Python

C++

#### **TECHNOLOGIES**

Docker and Kubernetes

AWS (EC2, Route 53, Cognito, DynamoDB, S3, SageMaker, SQS)

Backend Frameworks: NestJS, Gin (Go)

Frontend Frameworks: React

PyTorch

CUDA

#### **SKILLS**

**Bayesian Analysis** 

Test-Driven Development

**Parallel Computing** 

Machine Learning Model Deployment

Algorithm Design

#### **AWARDS**

Full-ride scholarship to BYU

Phi Delta Phi, French Honor Society

#### **LANGUAGES**

French (Professional proficiency)