

# JAY CUI

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## PROFESSIONAL EXPERIENCE

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### MLOps Engineer

Sep 2022 – May 2024

*BENlabs*

- Reduced ML service deployment time by **80%** by automating linting, testing, and infrastructure provisioning in CI/CD pipelines ([GitHub Actions](#), [pylint](#), [pytest](#), [AWS Cloud Development Kit](#))
- Reduced ML workflow setup time by **50%** by turning the workflow into a template and making the template auto-generated ([Metaflow](#), [BentoML](#), [projen](#))
- Reduced tech debt for all data teams by **50%** by migrating legacy services from Bitbucket to GitHub and reconfiguring them (GitHub, Bitbucket, projen)
- Reduced ML application debugging time by **20%** by coaching the data scientists on software engineering best practices
- Provided company-wide access to up-to-date vector embeddings by building two self-updating data pipelines (Python, Databricks, [Dagster](#), Hugging Face, [Pinecone](#))
- Enabled data scientists to train ML models on GPUs by writing a bash script that automates remote cloud workstation setup and configuration (shell scripting, SSH, Linux, git, Docker)
- Unblocked data scientists from CI/CD and deployment failures by troubleshooting their ML applications (AWS)

### Frontend Software Engineer Intern

May 2022 – Aug 2022

*Neighbor Storage, Inc.*

- Enabled users to create and update rental listings and payment information by building **10+** UI components and **2+** API endpoints (HTML, [Tailwind CSS](#), React with TypeScript, Go)
- Launched UI-Kit Version 2 by building **10+** reusable, fully-tested React components ([React Testing Library](#))

### Backend Software Engineer Intern

May 2021 – Jul 2021

*Pluralsight, Inc.*

- Accelerated user data load time by **67%** by redesigning the table concatenation procedure (SQL)
- Provided new content access to **17,000+** enterprise customers in **180+** countries by integrating 50GB of data into Pluralsight's insights & analytics platform (SQL, C#, integration testing)

## RELEVANT SKILLS

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### DevOps & MLOps

Shell Scripting | CI/CD with GitHub Actions | Cloud Computing with AWS | Infrastructure as code (IaC) with AWS Cloud Development Kit (CDK) | Containerization with Docker | Model Training with Metaflow | Model Serving with BentoML

### Software Development

Backend Development with Python, Java, C#, C++ | Frontend Development with TypeScript, React.js, TailwindCSS, HTML | Automated Software Testing with pytest, React Testing Library

### Data Science

Data Querying with SQL, Databricks | Data Pipeline Orchestration with Dagster | Vector Database with Pinecone | Exploratory Data Analysis (EDA) with NumPy, Pandas, Matplotlib, Seaborn | Machine Learning with scikit-learn, PyTorch

## EDUCATION EXPERIENCE

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### Brigham Young University

Sep 2019 – Jun 2023

- B.S. in Mathematics, Applied & Computational Mathematics Emphasis ([ACME](#))
- Minor in Computer Science
- Heritage Scholarship: merit-based half-tuition scholarship