Jonathan Montgomery

3725 Buchtel Blvd S
Denver, CO 80210
(812) 216-2445
jmontgom543@gmail.com

EXPERIENCE

Indigo BioAutomation, Denver CO— *Software Systems Specialist*

April 2021 - PRESENT (40hr/week)

- I manage deployments and custom content in Github for 140+ websites.
- Improve internal systems to improve site management and reporting.
- Build domain-specific-languages (DSLs) in Ruby and Scheme to generate custom reports and QA rules for liquid chromatography-mass spectrometry (LCMS) labs.
- Develop and fine-tune baseline noise models for LCMS signals.
- Leverage data from AWS S3 and Amazon Redshift to drive decisions, monitor product performance, and fine-tune configurations.
- I built a flask server to host an interactive vector database to search internal resources and integrated it with an MCP app.

Epic Systems Corp., Madison WI— *Software Developer*

September 2019 - April 2021 (50hr/week)

- Developed full-stack application software for surgical workflows in C# .NET with Typescript React.
- Developed data-wrangling algorithms to collect, transform, and transmit complex medical data within a NoSQL M database.
- Collected data and built a government mandated report to provide access to insurance network prices.
- Migrated applications from VB6 to modern C# .NET.

EDUCATION

University of Denver — *MS Data Science*

September 2024 - May 2026

I currently study Data Science at the University of Denver focusing on statistics, ML, and MLOps with a prospective graduation date of May, 2026.

Indiana University — *B.S. Computer Science and Physics*

August 2015 - May 2019

Graduated with a GPA of 3.84 with majors in Computer Science and Physics and a minor in Mathematics. Contributed to interdisciplinary research in cognitive science and physics.

PROJECTS

Environmental Statistics Consulting — *Groundwater Quality*

Analyzed 10 years of groundwater contamination data to assess remediation progress and delivered a report accepted by the Indiana EPA demonstrating the remediation's success.

Computer Science Tutoring — *Undergraduate and Masters Level*

Tutored various computer science courses including data structures, distributed systems, cryptography, and bioinformatics.

Coursera

Fundamentals of GIS, IBM Data Science, Fundamentals of Visualization with Tableau

WEBSITE

https://github.com/jonmontg

CERTIFICATIONS

AWS Certified Cloud Practitioner

PROGRAMMING LANGUAGES

Python, C#, Ruby, SQL, TypeScript, Java, Scheme, C/C++, R, Bash

PLATFORMS

Linux
Mac OS X
Microsoft Windows

TECHNOLOGY

Data Science and Engineering
Spark, Athena, numpy, matplotlib, scipy, pandas, polars, Microsoft excel, SQL and NoSQL databases, LLM Prompt Engineering, RAG architecture in AWS, Vector Databases, search algorithms, Flask, Keras, PyTorch

Cloud Tools
AWS, Jenkins

Containerization
Docker, local orchestration, kubernetes

Machine Learning
model fitting, regression analysis, clustering, neural networks, image classification, Bayesian learning, Markov chains

AWARDS

Hutton Honors Scholar, Executive Deans List, Founder's Scholar, Magna Cum Laude