Cole B. Sturza

3040 ½ Pennsylvania Avenue, Boulder, CO 80303
267-693-6804 colesturza@gmail.com linkedin.com/in/cole-sturza github.com/colesturza

Education

University of Colorado Boulder **Aug. 2021 – May 2022**
Master of Science in Computer Science (Intelligent Systems Sub-Plan) *Boulder, CO*

University of Colorado Boulder **Aug. 2017 – May 2021**
Bachelor of Science in Computer Science *Boulder, CO*
Minor in Applied Mathematics (Scientific Computation Emphasis)
Honors: summa cum laude

Experience

Lockheed Martin **June 2022 – Current**
Software Engineer *Littleton, CO*

- Working on a multitude of various projects utilizing different technologies (Python, Java, C/C++, MATLAB).
- Developing code for microservice architecture.

Lockheed Martin **May 2020 – June 2022**
Software Engineer Intern *Littleton, CO*

- Worked for a communications simulation team developing microservices primarily with Java.

Crossbeam **June 2018 – August 2018**
Software Development Intern *Philadelphia, PA*

- Created a working B2B Partnerships directory website—Partnerbase.
- Collaborated with a group of three interns to develop Partnerbase.
- Designed and developed a database to store information about companies and their partnerships using Flask, PostgreSQL, and SQLAlchemy.
- Developed web API and test cases on the backend.
- Built out pages and components using Vue.js and bootstrap on the frontend.

University of Colorado Boulder **Various Semesters**
Course Assistant *Boulder, CO*

- Courses: Software Development Tools and Methods, Data Structures, and Linear Algebra w/ Computer Applications.
- Held office hours/review sessions for students who had questions about the material taught in class.

Projects

Numerical Analysis 2 Final Project | *MATLAB, LaTeX* **April 2021**

- Researched two techniques for solving 2D elliptical Partial Differential Equations.
- The first technique was a Fast Poisson Solver that used the Fast Fourier Transform to efficiently solve a Finite Difference Scheme.
- The second technique was Integral Equations.

Senior Capstone | *Python, Django, MongoDB, React, Pandas* **Aug. 2020 - April 2021**

- Created a data ingestion tool that categorized incoming columns using various heuristics.
- The tool also removed various forms of personal identifiable information from incoming data files.

Machine Learning Final Project | *Python, Jupyter Notebook, Pandas, librosa, TensorFlow, scikit-learn* **April 2020**

- Attempted to use supervised learning models to classify a given audio file into 10 different music genres.
- Researched and recreated various neural nets from a number of papers.

Relevant Coursework

- Design & Analysis of Algorithms
- Object-Oriented Analysis & Design
- Convex Optimization
- Linear Programming
- Machine Learning
- Neural Nets and Deep Learning
- Probabilistic Models for ML
- Natural Language Processing
- Network Analysis and Modeling
- Numerical Analysis 1 & 2
- Artificial Intelligence
- Software Engineering Project 1 & 2
- Design & Analysis of Data Systems
- DevOps in the Cloud
- Algorithmic Economics

Technical Skills

Languages: Python, Java, C/C++, MATLAB, SQL, MongoDB, Javascript
Technologies/Frameworks/Tools: Linux, Git, Slack, Vagrant, Ansible, Docker, FastAPI, Django/Flask, LaTeX, Vue.js, Jetbrains IDEs, Netbeans, Jupyter Notebook, TensorFlow, scikit-learn, numpy, pandas, Jakarta EE
Other: Microservices, Agile Methodologies, Scrum, Full-Stack Software Development