Wes Galbraith

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Overview:

I have a background in applied mathematics which I plan to utilize as the foundation for a career in software engineering. Particularly, I want to play a role in creating the next generation of data driven web and mobile applications. Over the past year, I began cultivating the necessary skills to achieve this vision, both by expanding upon my python knowledge while working as a data analyst for TNR Technical, and by learning clojure and frontend development while volunteering for Code for Denver. I am prepared to show the same dedication and tenacity that I needed to earn my M.S. in mathematics as I continue to grow as a software developer.

Skills:

Web Development

- clojure
- luminus
- reagent
- html
- css
- git
- sassc
- algorithms and data structures
- bootstrap
- functional programming
- object oriented design

Data Analysis

- python
- pandas
- sklearn
- pdb
- scrapy
- beautiful soup
- numpy
- matplotlib
- scipy
- statsmodels
- linear algebra
- statistics
- probability
- control theory
- machine learning
- time series analysis

Experience:

Code for Denver

Volunteer Web Developer — 06/2018-Present

- Implemented reagent components for a luminus web app designed to connect Denver communities with wealth building resources.

TNR Technical

Data Analyst — 03/2018-Present

- Built a Markov decision process model to compute optimal inventory restocking policies from sales data.
- Generated sales leads with web scraping techniques.

Colorado State University

Graduate Research Assistant — 08/2014-12/2017

- Derived partial differential equations to model Ion Bombardment experiements.
- Implemented exponential time differencing methods in python to numerically simulate the solutions of these partial differential equations.
- Discovered a criterion experimentalists can check to help determine the dominant physical mechanism in ion bombardment experiments.
- Improved memory efficiency of the research group's code by a factor of 2 by utilizing real Fourier transforms.
- Tested and debugged research code using pdb.

Education:

Colorado State University

M.S. Mathematics — 08/2014-12/2017

- **Thesis:** On the Contribution of Phase Separation to Pattern Formation during Normal-Incidence Ion Bombardment of Binary Compounds
- **Research Advisors:** Profs. Patrick Shipman and R. Mark Bradley
- **Focus:** Partial Differential Equations, Numerical Analysis, Materials Science
- **Departmental Involvement:**
  - Webmaster for CSU's student chapter of SIAM, Fall 2017.
  - Organized the department's graduate student seminar, Fall 2017.

Gettysburg College

B.A. Mathematics — 08/2010-05/2014

- Graduated Summa Cum Laude
- GPA: 4.00
- Earned Earl E. Ziegler Award and Charles Baum Prize for academic excellence in mathematics.