Wes Galbraith

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Overview:

I plan to utilize my applied mathematics background as the foundation of a career in software engineering. Particularly, I envision myself playing a role in creating the next generation of data driven web and mobile applications. Over the past year, my time spent working for TNR Technical and volunteering with Code for Denver have helped me begin to cultivate the skills necessary to achieve this vision. As I grow as a software developer, I will continue to embrace a learning mindset, and meet future challenges with the same dedication and tenacity that I needed to earn my master's degree.

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 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:** Professors 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.