Jay Speidell

Data Science

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*My website shows off some cool projects, check it out!

Education

B.S. Computer Science | 2020
Old Dominion University | 3.94 GPA

B.A. English | 2011 | Virginia Tech

Skills

Programming Languages:
- C/C++
- Java
- Python
(Incl. Flask, Jupyter, Keras, Numpy, Pandas, Pyplot, Seaborn, Scikit-Learn, Tensorflow, all the fun data science tools.)

Data Science:
- Data Visualization
- Deep Learning
- Exploratory Data Analysis
- Machine Learning
- Relational Databases
- SQL, Elasticsearch
- Statistics

Computer Science:
- Cloud Computing / High Performance Computing (AWS, GCE)
- REST APIs (Flask)
- Software Engineering:
- Continuous Deployment
- Project Management
- Version Control (Git, Github)
- SSH (I basically live in the terminal)
- Linux/Unix (Desktop and Server)

Design Skills:
- 3D (OpenSCAD)
- Document (InDesign, LaTeX)
- Raster (Gimp, Photoshop)
- Software (Unified Modeling Language)
- Vector (Illustrator, Inkscape)

Projects

Toxic Comment Classification (Portfolio Link)
- Built a Support Vector Machine model incorporating Naive Bayes feature weights that predicts whether Wikipedia comments are toxic.
- Performed detailed exploratory data analysis and description of the dataset.

PySwarms Open Source Contribution (Portfolio Link)
- Added the ability to use Pyplot color gradients, making it easier for researchers to visualize their objective functions.
- Significantly expanded the library of built-in objective functions.
- Collaborated with other developers using GitHub for communication and version control.
- Wrote unit tests to ensure changes would be properly integrated into the project.

ODUConnect - Software Engineering Project (Portfolio Link)
- A group project to design and develop a ReactJS web app to connect industry professionals with mentoring opportunities at the university.
- I led the front end development, built a REST API, implemented continuous deployments, among other responsibilities.
- Used an MSSQL Database / Flask API / ReactJS front end stack.

CPU Temperature Approximation (GitHub Link)
- Developed a data analysis application to approximate time-series data in Python.
- Implemented a matrix solver module from scratch.
- Implemented Cubic Spline, Linear Least Squares, and Linear Piecewise Interpolation.
- Implemented full unit test coverage.

Mercari Price Suggestion Challenge on Kaggle (Kaggle Link)
- Performed exploratory data analysis on the Mercari item pricing data.
- Built an ensembling algorithm that trains models in a sequence, using the output of multiple models as features in an ensemble model.
- Placed in the top 18%.

3D Printed Trail Maps (Website Link)
- Designed unique 3D topographical models with overlaid hiking and mountain bike trails.
- Created a unique process for combining elevation, hydrographic, and GPS data using Python and Numpy.
- My website has photos and links to download .stl files.

Work Experience

Nov'15-Present — Marketing Manager at Momentum, Inc — Seattle, WA
- Developed effective annual marketing strategies that delivered on overall organizational goals.
- Drove increased marketing and sales performance through a CRM conversion, website optimization, an industry-leading blog, and high-value demand generation content.
- Authored and designed the data-driven whitepaper A Study of Credit Union Workplaces and the Future of Work.

Mar'08-May'15 — Special Projects Manager at The Speidell Group — Lynchburg, VA
- Managed the production of photo and video content.
- Led the development of an automated estimation and proposal system to replace a manual process.