

# 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 Integration
  - 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.

### Bike Sharing Demand on Kaggle (Kaggle Link)

- Performed a visual statistical analysis of Washington DC's bike share ridership data.
- Built a machine learning model to predict future ridership.

### 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.

### Super Moon Attack (Github Link)

- Developed a game in Python where you can fly a space ship over the surface of the moon and shoot aliens.

### School Projects

- Software Engineering: Led a group project to develop a website resource analysis tool in Java, including creating an SRS, UML design documents, and unit tests.
- Professional Development: Led a group project to develop a ReactJS web app to connect industry professionals with mentoring opportunities at the university. I designed the app, built a CI pipeline to build and deploy the app, and wrote a REST API to connect the app to a back-end database.

## Work Experience

- |                |   |               |
|----------------|---|---------------|
| Nov'15-Present | Marketing Manager at Momentum, Inc  | Seattle, WA   |
|                | <ul style="list-style-type: none"><li>• Drove increased marketing and sales performance through a CRM conversion, website optimization, an industry-leading blog, and high-value demand generation content.</li><li>• Developed effective annual marketing strategies that delivered on overall organizational goals.</li></ul> |               |
| Mar'08-May'15  | Special Projects Manager at The Speidell Group  | Lynchburg, VA |
|                | <ul style="list-style-type: none"><li>• Managed the production of photo and video marketing materials.</li><li>• Led the development of an automated estimation and proposal system to replace a manual process.</li></ul>  |               |