Westchester, NY   **Douglas Silverman**   https://douglas-silverman.github.io
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Education

Amherst, MA   University of Massachusetts, Amherst   Graduation: May 2021
- Major: B.S. Computer Science | Secondary Major: Mathematics
- Undergraduate Coursework: Data Structures, Algorithm Design and Analysis, Computer Graphics, Machine Learning, Natural Language Processing, Linear Algebra, Abstract Algebra, Combinatorics and Graph Theory, Statistics I and II

Work Experience

Implementation Consultant   FAST Enterprises | *Centennial, CO*   2021-2022
- Full Stack Developer working for the State of Michigan Unemployment Insurance Agency as a consultant
- Learned a proprietary system and large codebase in a month to work on production code
- Worked extensively on the backend upgrading and adding entries in reference tables from legacy system
- Converted Visual Basic code components to C# as well as wrote new pieces of C# code for custom functionality
- Single-handedly tailored the Frontend website to match the requests of the client (custom theme, header, footer, and color palette)

Web Development Intern   Coach & Crew | *Los Angeles, CA*   2019 – 2020
- Learned Angular.js and Bootstrap in a week - recreated Google login page and created mock homepage for C&C
- Assisted in the development of a noSQL database using Google Firebase with a group of 8 others

Skills

- Programming: Java, Python, C#, SQL, AWS CDK, JavaScript, C,
- Software: Visual Studio Code, Microsoft SQL Server Management Studio (SSMS), git, GitHub, Eclipse
- Machine Learning: scikit-learn, numpy, pandas, matplotlib
- Web Development: Vue.js, Angular.js, Node.js, MongoDB, Google Firebase

Projects

Sentiment Analysis on COVID-19 Tweets | *Python, scikit-learn, numpy*   November 2020
- Retrieved a pre-labeled Dataset of ~40,000 coronavirus tweets between March and April of 2020
- Cleaned dataset by iterating a numpy array of tweets and removing invalid characters like emojis
- Converted each tweet into a vector of terms (words) using a TF-IDF vectorizer
- Trained Naive Bayes, Logistic Regression, Random Forests, and VADER from scikit-learn using the TF-IDF vectors
- Evaluated each classifiers performance on cleaned test dataset - VADER and Logistic Regression performed best

Analysis of Sports betting Strategies | *Python, pandas*   March 2020
- Simulated amateur betting strategies by created models and testing them on 3 seasons of play across 3 sports
- Models: Martingale and Oscar's Grind which reduce losses - Kelly Criterion that maximizes profit 2 Poisson Distribution models that predict winners of every game
- The datasets were cleaned to normalize team names (some teams change cities) and to remove invalid entries
- Plotted the profit over time for each strategy using matplotlib and results analyzed in final report

Alpha of Web App - startup | *Vue.js, Bootstrap, Google Firebase*   February 2021
- Collaborated with another student living in India to design entire web app from the ground up
- Agile project management to seamlessly build app across a 10.5 hour time zone difference during Quarantine
- Designed NoSQL database to store users and user data as JSON objects for Real Time updates and display
- Implemented user registration and authentication, user post/followed posts, cloud messaging

Leadership Experience

Captain of UMass Ultimate Frisbee Development team   September 2019 - May 2020
- Managed logistics of practice, taught key strategies, developed young and new players