

# DOUGLAS SILVERMAN

SOFTWARE ENGINEER  
WEB DEVELOPER

## CONTACT

914-610-1418  
dpsilverman@umass.edu

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## WEBSITE

<https://douglas-silverman.github.io>

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## SKILLS

### Programming Languages:

Python, Java, JavaScript, C

### Machine Learning:

scikit-learn, numpy, pandas, matplotlib

### Web-Development:

Vue.js, Angular.js, Node.js, MongoDB, Google Firebase

### Software:

Visual Studio Code, git/GitHub, Eclipse

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## EDUCATION

University of Massachusetts, Amherst  
B.S.in Computer Science & Mathematics  
GPA: 3.26  
Graduation Date: May 2021

## COURSEWORK

### Computer Science

Data Structures  
Algorithm Design and Analysis  
Web Programming  
Computer Graphics  
Artificial Intelligence  
Natural Language Processing  
Machine Learning

### Mathematics

Multivariate Calculus  
Linear Algebra  
Abstract Algebra  
Mathematical Modeling  
Combinatorics and Graph Theory  
Scientific Computing  
Statistics I and II

## EXPERIENCE

### Coach & Crew – Web Development Intern

*August 2019-March 2020*

- Created different web pages using Angular, Typescript, HTML, and CSS
- Worked as a Remote Intern for a startup company that is based out of Los Angeles
- Communicated smoothly over different time zones, mainly through email and Slack

## PROJECTS

### Sentiment Analysis on COVID-19 Tweets

*September 2020 - December 2020*

- Trained Naive Bayes, Logistic Regression, Random Forests, and VADER from scikit-learn
- Selected feature vectors using TF-IDF vectorizer for better performance
- Predicted tweet sentiment and analyzed performance of each classifier
- Cleaned dataset of ~40k covid tweets from March and April 2020

### Analysis of Sports Betting Strategies

*March 2020 - October 2020*

- Created 5 different models to simulate different gambling strategies
  - Martingale, Oscar's Grind, Kelly Criterion, Poisson Distribution
- Simulated betting over a season of play and graphed profit over time
- Cleaned and normalized dataset of 3 seasons of games from MLB, NBA, NFL
  - Team's change name/city over the years as well as column orders in CSV

## LEADERSHIP

### Umass Ultimate Frisbee Dev Team Captain

*September 2018 - May 2019*

- Leadership Committee - team management - tournament planning – logistics(2017-2019)