

# AVI GARG



www.avigarg.me



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## EDUCATION:

University of California,  
Berkeley (May 2022)

B.A Computer Science GPA: 4.00

B.A Statistics GPA: 4.00

B.A Economics GPA: 3.86

## COURSEWORK:

- Probability for Data Science
- Advanced Algorithms
- Techniques of Data Science
- Data Structures
- Advanced MicroEconomics
- Linear Algebra
- Stochastic Processes

## SKILLS:

### Languages:

- Python (Expert)
- Java (Proficient)
- Javascript (Proficient)
- SQL (Proficient)
- Scala (Intermediate)

### Frameworks/Libraries:

- Sci-kit Learn (Expert)
- Pandas (Expert)
- Matplotlib (Proficient)
- Seaborn (Proficient)
- React (Proficient)
- Flask (Proficient)
- Express (Intermediate)

### Software:

- Adobe Premiere Pro
- Adobe Illustrator
- Azure/VS Studio Code
- AWS Sagemaker

### Other:

- Machine Learning
- Strong Analytical Ability
- Playlist Curator
- Obstacle Courser

## EXPERIENCE:

- **Applied Statistics Intern** May 2020 - Present  
Microsoft | Redmond, Washington
  - Working with the WorldWide Learning Team to analyze the success of initiatives and predict student interests based on coursework
  - Mainly using Cython, machine learning libraries, and neural nets
- **Data Science Intern** Sep 2019 - Feb 2020  
Beyond the Arc | San Francisco, California
  - Large scale data analysis, data mining, text analysis and data engineering
  - Working with Jupyter notebooks, optimizing Python library Bokeh for visualization.
  - Generating algorithms to expedite graph production and presentation
- **Machine Learning Extern** Aug 2019 - Feb 2020  
Bomotix | San Jose, California
  - Worked with Deep Sort and MXNet to track sport player movements
  - Helped plan and formulate methods to reduce obstructions in tracking and identify "highlight" moments in a player's game
- **Big Data Analysis Intern** Aug 2019 - Feb 2020  
CyberCube | San Francisco, California
  - Cleaned database redundancies using an affinity propagation algorithm and integrated the model in Amazon Sagemaker using Spark
  - Used Spark's distributed computing to spread the workload over cluster and helped to reduce repeats by 75%
- **Synthetic Networks Intern** Aug 2019 - Feb 2020  
Naval Postgraduate School | Monterey, California
  - Worked with Professor Gera to establish a foothold in new network synthesis of government data, looking at the connections in established terrorist networks
  - Analyzed over 1 million total connections around 3 thousand nodes using Gephi to pinpoint key players

## PROJECTS:

- **Stock Market Analysis** April 2019 - Present
  - Using sentiment analysis in news article to predict changes in market baskets, specifically looking at industry mutual funds
  - Originally done using sklearn, but hope is to make a neural net with NLP
- **Online Academic Planner** April 2019 - Present
  - Using React to make an online planner to help students navigate changes due to COVID-19
  - Calculates semester, major and cumulative GPA and handles different grading systems, including P/NP and high school
- **Spotify Playlist Clustering** April 2019 - Present
  - Utilizing Spotify API to create a Flask App to automatically divide playlists based on listening habits of Users