AVI GARG

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OBJECTIVE:

To develop **efficient** and **elegant** solutions through **data driven methodologies**, within an environment that will **utilize** and **challenge** me to the highest level possible.

EDUCATION:

University of California, Berkeley

Bachelor of Arts Computer Science	**GPA: 4.00**
Bachelor of Arts Mathematics	**GPA: 4.00**

Relevant Coursework

- Discrete Probability
- Stochastic Calculus
- Macro Economics
- Data Structures
- Data Science
- Abstract Algebra
- Linear Algebra
- Markov Chains

SKILLS:

Languages: **Python** (Scikit-learn, Pandas, MatPlotLib, SQLAlchemy), **Java** (Maven, Spring), **Scala**, **HTML, CSS**, **SQL** (SequelPro, MySQLWorkbench), **VBA**

Software: **Flask**, **AWS** (Sagemaker, ERM, EC2, Glue), **Spark** (PySpark, Hadoop, MLlib), **Adobe Creative Cloud** (Premiere Pro, Illustrator, Photoshop), Microsoft Suite, G Suite

Numerical: **Machine Learning, Linear Algebra, Stochastic Calculus, Markov Chains, Discrete Analysis, Modular Arithmetic**

Other: **Strong Analytic Skills**, Cooking, Obstacle Course Competing, **Team player**, Video Editing, Avid Playlist Creator

EXPERIENCE:

Data Science and Analytics Intern   **Sep 2019 - Present**
Beyond the Arc | San Francisco, California

Doing large scale **data analysis using data mining, text analysis and data engineering** inside Jupyter notebooks, optimizing Python library **Bokeh for visualization.** Focusing on client work and working with N.D.A data with the vision of **uncovering comprehensive conclusions**. Presented finding and data to clients as well as possible action based on conclusions.

Machine Learning Consultant   **Aug 2019 - Present**
HilightAI | San Jose, California

Helping customize **machine learning algorithms** for sports prediction and for movement tracking. Product is focused on helping coaches and individual players analyze form and coordination. **Algorithmic customization** per activity was necessary and required extensive analysis within emerging **computer vision research.**

Big Data Analyst Intern   **May 2019 - Aug 2019**
CyberCube | San Francisco, California

Working on cleaning database redundancies using **Amazon Sagemaker,** integrated with **PySpark**, specifically utilizing Sagemaker's **Machine Learning algorithms** and distributed computing capabilities across an EMR cluster to reduce the time for feature extraction and analysis.
- **Cost reduction by 70%** and **speed increase by 98%** in information gathering.

Researcher in Graphical Analysis   **Jun 2017 - Mar 2018**
Naval Postgraduate School | Monterey, California

Worked with Professor Gera, to establish a foothold in a **new network synthesis** of government data, specifically looking at the connections in established terrorist networks. Analyzed over **1 million total** connections between **3 thousand nodes** economically, socially and geographically
- Analyzed the network using **Gephi**, a modeling software, to pinpoint key players and recognize patterns

PROJECTS:

Stock Market Analysis   **April 2019 - Present**
Collaborative Project | UC Berkeley, University of Michigan

Coding in Python with **Scikit Learn** and **Matplotlib** to create a prediction for **stock market changes** based on current news events. Using **data mining** on articles sourced from a variety of media outlets to generate a holistic metic which could train a model using **past stock fluctuations**.
- Able to train itself over time to become better, utilizing current news and current stock prices

Spotify Data Analysis   **Aug 2017 - Present**
Independent Project

Utilized the **Spotify and Genius API's** to gather info on songs' lyrical repetition, tempo and built a correlation model to **analyze association with song popularity,** and whether the correlation differed significantly between artists and between genres
- Updating the accompanying paper as work is done on new genres and artists