Amar Sahota

Phone: 647-459-3741 | **E-Mail:** amar.sahota271@gmail.com | Project Portfolio

Amar Sahota has been able to develop specialized skills in R, Python, SQL, Excel and other programming languages allowing him to solve complex problems, while generating and displaying significant insights from large data sets. He is a highly motivated, result-oriented professional who has proven his ability to juggle multiple priorities simultaneously. His objective is to obtain a position that will allow him to use his problem-solving and programming skills in the field of data analysis and mathematical finance to create quantitative models to aid decision-making.

SKILLS

Python	Data Analysis	Time Management
R	Google Cloud (GCP)	Communication
SQL	Tableau	Problem-Solving
Machine Learning	Excel	Organization
Quantitative Modelling	Git	Mathematics
Data Visualization	Bash	Statistics

PROJECT AND WORK EXPERIENCE

Lantern Institute

Mathematical Finance and Data Science **March 2019 – Present**

- Preformed Data analysis on Samsung health data to investigate patterns and to generate significant insights using Python (**Numpy, Pandas, Matplotlib, Seaborn, Scikit Learn**). Created apps displaying insights and interactive visuals using **flask** and **dash**.
- Used **Google Cloud** to run apps continuously and broadcasted apps with external IP to enable public access.
- Used unsupervised and supervised **machine learning** techniques such as **PCA**, **K-Nearest Neighbors**, **K-Clusters** and **Regression** to create predictions and analyse structure of data.
- Investigated LIBOR interests' rates for multiple **CAD** and **USD** tenors. Analysed the variance of tenors using **principal component analysi**s and investigated correlation plots to generate key insights. Used predictive models such as autocorrelation and Vasicek models to project probability distributions for future rates.
- Set-up queries for **SQL** databases to sort, aggregate, join and analyse data to generate insights.

Quantitative Options Trader

Self – Employed **April 2017- Present**

- Traded option contracts on **stocks**, **ETF's** and **indexes**
- Analyzed Markets based on **Fundamental** and **Technical** Analysis
- Consulted with investors to find optimal strategies for specific market conditions
- Created models to indicate when to enter, exit, alter or **hedge** positions based on price action
- Used **R programming** to back test and analyze different strategies
- Used **Pandas** in **Python** to track results and analyze trading data
- Altered and Adjusted positions based on market fluctuations

VOLO Headphones (Start-Up)

Co-founder **Jan 2016 – April 2018**

- Used Engineering Software to create renders of Headphones
- Created full functioning prototypes using 3D Printers
- Developed marketing campaigns through Instagram and other social media outlets
- Pitched product and business plans to investors
- Hired interns to help with business operations
- Created models to estimate financial projections of revenues and future cash flows.
- Worked with angel investors to create strategic business structure and product ideas
- Raised money through pitch competitions and engineering awards.

Designtest & Balance

Project Manager Assistant **January 2014- August 2015**

- Created an automated data entry process for air and water reports using **Excel**
- Prepared blueprints and reports prior to onsite visits
- Attended meetings to go over the deficiencies and the progress of ongoing projects
- Worked directly with the project manager to create and schedule jobs

Unionville Milliken Soccer Club

Head Coach **June 2011 - September 2011**

- Coached children under the age of 12 in their soccer development
- Organized training exercises to improve soccer skills of children
- Provided moral support to the team during games
- Notified team member's parents on soccer schedules

EDUCATION

Society of Actuaries **January 2019**
Exam P

Ryerson University **April 2018**
Mechatronics Engineering