

# TARUNJEEV JUNEJA

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## EDUCATION

**Simon Fraser University**  
B.S. in Data Science, Minor in Statistics

Burnaby, BC  
Jan 2017- May 2022

### Relevant Coursework

Learning from Big Data, Data Structures & Algorithms, Applied Time Series and Analysis, Statistical Learning & Prediction, Advanced R for Data Science. Databases & SQL, Computational Data Science, Operation Research Clinic, Software Programming, Object-Oriented Programming with Java

## CORE COMPETENCIES

**Languages:** C++, C, MATLAB, R, Python, SQL, JavaScript, Apache Hadoop, Java, NodeJS.  
**Libraries:** OpenCV, Seaborn, Matplotlib, NumPy, SciPy, XGBoost, Pandas, Scikit-learn, Pytorch  
**Project Management:** GitHub, GitLab  
**Operating System:** Windows, Ubuntu, Android, Mac  
**Applications:** Salesforce, Git, Visual Studio Code, MySQL Server, Microsoft Office, PostgreSQL

## WORK EXPERIENCE

### SFU Beedie School of Management Information Systems

*Data Science Project Coordinator* *Dec2021 –Jun2022*

- Implemented deep learning architecture using RNN and CNN to classify fake online doctor reviews.
- Executed a GPT-3 classifier using OpenAI API, that resulted in classifying fake reviews by 74%.
- Accomplished setting up a MYSQL Database in AWS and automated the data storage by writing scripts, which is used to create dashboards & track product submission
- Working under a PhD professor in a Data Science project to create a text mining engine using Machine Learning (ML) tools and techniques and Python APIs that can rate the persuasiveness of reviews text

### Coast Appliances Capstone Project (Web Scraping Tool)

*Backend Developer* *May2022 –Aug2022*

- Designed and implemented RESTapi using Nodejs, Javascript and PostgreSQL for web application that provides client with the relevant data on their competitor's prices by crawling their sites
- Created 10+ test scripts to conduct agile testing and developed application packages for delivering high-quality functionality of the software to the client within stipulated timelines
- Tested API daily and modified code for optimizing performance as part of improving user experience

### United Way Capstone Project

*Research Assistant* *Jan 2022 – Present*

- Built data-driven model to quantify amount of childcare support in different parts of British Columbia.
- Created charts in Jupyter Notebook to perform preliminary analysis and visualize data using Matplotlib.
- Designed a needs and allocation models using techniques including variable correlation, clustering to reduce dimensions & calculate demand and supply scores for child support by region.
- Performed sensitivity analysis with the objective of maximize funding which resulted in helping 503 kids with a savings of \$129K in the target region of high amount of indigenous community.

### SFU Student Services

*Data Analyst* *May2021 – Sep2021*

- Worked on uploading 30,000+ rows of student lead data from recruitment events to the SFU salesforce database including analysis of uploading process.
- Implementing process of Counsellor data clean up and analysis of usage, including potential support in mail outs to counsellors.
- Generated reports on excel and conducted analysis using tableau to research on students, identifying the target metrics and to help optimize the salesforce platform.

### Premium

*Lenovo Assisted Brand Ambassador* *Jan2021 – May2021*

- Translating numbers and analyzing sales figures to inform strategic business decisions. Received 90% average customer satisfaction rating and received recognition for exceeding sales target up to 110% to the monthly budget.
- Managed and developed reports regarding inventory of products and maintained positive working relationships with clients by providing excellent customer service skills
- Developed, maintained, and communicated up-to-date product knowledge, accessories, and other products.

## PROJECT EXPERIENCE

### Data Science Salary Prediction

- Scrapped over 1000 job descriptions from glass door using Beautiful Soup and performed Data Visualization to understand trends, outlier detection and patterns that helped in prediction of data science salaries.

- Performed data manipulation, cleansing, and standardization to provide a framework for advanced exploratory analysis and descriptive analysis on consistent and uniform data.
- Performed exploratory analysis on the data by preparing various plots using multiple python libraries (i.e. matplotlib.pyplot, seaborn) to gain valuable insights from the data.
- Designed, implemented and predicted average salary of a job using machine learning models including random forest, ensemble and Adaboost regression and used hyper-parameter tuning to improve model accuracy
- Developed an XG Boost model in order to predict salaries of data science jobs that outperforms Mean Absolute Error of the baseline approach by 61%.

### Price Predictor for NFT Auctions

*Learning From Big Data*

- Lead a team of two students in designing, coding, and implementing and machine learning strategy that predicts prices for Non-Fungible Token Auctions.
- Aggregated and prepared over 18,000 NFTs, by combining historical and image data.
- Built an XG Boost model using Python that outperforms the mean absolute error of the next best projection by 96%.

### COVID-19 Case Predictor

*Learning From Big Data*

- Worked with a team of three students in designing, coding and implementing an machine learning strategy to predict prices for COVID-19 Cases in British Columbia between January 2020 and August 2021
- Aggregating and preparing from two different sources
- Built a Random Forest model in Python that outperforms the Root Mean Square Error of baseline approach by 46%.

### Multivariate Adaptive Regression Spline

*Advanced R for Data Science*

- Collaborated with 3 students to implement a machine learning algorithm that focus on understanding the nonlinear interaction between response and explanatory variables in R.
- Developed a model in generalized linear model user interface using hinge functions that produces the predicted variable that takes non-linearity into account.
- Boosted model by performing ANOVA decomposition that enhanced the learning of understanding the interaction of models with other variables using object-oriented programming S3.

### Data Structures and Algorithms

*Data Structures and Algorithms*

- Built algorithms using stacks, queues, trees, hash tables and worked with object-oriented programming in C++. Designed and implemented a program using C++ that translates words from English to Japanese
- Implemented a dictionary using hash table and worked around double hashing to increase efficiency in data insertion and sorting process.

### Time Series Data Analysis Project

*Applied Time Series and Analysis*

- Performed data extraction techniques to analyze correlation between certain explanatory variables
- Compared several forecasting models such as Autoregression, Moving Average, Autoregressive Moving Average, Autoregressive Integrated Moving Average to predict the solar power for the next year.
- Boosted model that outperforms the Mean Square Prediction error of baseline approach by 3%.

### Instacart Market Basket Analysis

*Personal Project*

- Transactional data was used to predict combination of products a consumer is likely to buy again or try first time.
- Used Association Rules Model to predict the demand for a particular product and applied minimum support criteria to identify most frequent item set purchased by consumers.
- Optimized product recommendation by using Apriori algorithm and Collaborative filtering.

### Data Scientists Salary Prediction

*Personal Project*

- Scrapped over 1000 job descriptions from glass door and performed Data Visualization to understand trends, outlier detection and patterns that helped in prediction of data science salaries.
- Performed Data Cleaning on the scrapped data and performed Exploratory Data Analysis to estimate salaries.
- Strategized ideas by performing feature engineering on the text given in job description to quantify values.
- Trained a Light Gradient Boosting model that resulted in an accuracy of 92%

VOLUNTEER EXPERIENCE

### Association of Critical and Interdisciplinary Thinking Global

*Global Operation Team Coordinator*

*Sept 2020 – Feb2021*

- Organizing and connecting by arranging meetings with partners via phone, e-mail and social
- Developing ideas and building strategies on how to get more people involved to help launch the company in job market and assisting team in maintaining business meetings, events and prioritizing requirements

### Simon Fraser Student Society Club

*Finance Coordinator*

*Sept 2021 – Apr2022*

- Managed work requests, new orders, and pricing changes while coordinating logistics to verify delivery dates and monitored accounts payable and receiving transactions.
- Also completed budget plans and drafted contracts before deadlines to avoid late fees.

To Whom It May Concern,

I am writing this reference letter in support of Tarunjeev Singh Juneja, 301329078, and his application for the Undergraduate Student Research Awards (USRA) within the Department of Mathematics.

Tarunjeev was hired as a Work-Study student during the fall 2021 semester within Simon Fraser University's Student Recruitment and Admissions team as a Data Analyst for our Student Recruitment Data Analysis and Research Project. His primary responsibilities were to analyze and clean-up prospective student data from recruitment events on Microsoft Excel and performing the upload process into our Salesforce CRM platform. In addition to prospective student data, Tarunjeev also worked on updating our worldwide Counsellor contact lists. Throughout this role, Tarunjeev displayed professionalism as a student staff and showed initiative in learning new software, completing online courses and tutorials.

Tarunjeev has also worked as a Research Assistant within the Department of Mathematics and Beedie School of Business, leveraging the skills he has learned in class and applying them to real-time projects and initiatives.

The USRA will provide Tarunjeev great hands-on research experience while working on actual projects to help him further develop his skills in his area of interest. If there is anything else I can do to support Tarunjeev's application, please do not hesitate to connect with me at [timothy\\_tao@sfu.ca](mailto:timothy_tao@sfu.ca).

Sincerely,



Timothy Tao, M.Ed.  
Analyst, Technology Management  
Student Recruitment and Admissions  
Simon Fraser University