

# Billy Shi

Burnaby, BC 236-788-9600 [Isa84@sfu.ca](mailto:Isa84@sfu.ca) [billyshi.com](http://billyshi.com)

## Technical Skills

- C++
- Java
- Python
- JavaScript
- Python ML
- SQL & No SQL
- C#
- React Native
- Next.js
- CSS
- Restful API
- Docker
- Android Studio
- Adobe After Effects
- Adobe Photo Shop
- Matlab
- Linux
- Mac OS, Windows

## Technical Projects

### Million Song Dataset Analysis

Oct - Dec 2022

#### Computational Data Science, SFU

- Analyzed the Million Song Dataset with a group of two using SFU cluster computer to find the number of groups existed in the songs.
- Downloaded the dataset from AWS using EC2 virtual machine used for the data analysis.
- Cleaned and extracted the dataset with pyspark preprocessing functions and statistic evaluations on the data to ensure normal distribution of the data.
- Analyzed the dataset on the cloud cluster computer using pipeline of pyspark machine learning features and vector assemble functions for statistic test.
- Evaluated the p-values with different values of k-means to find the number of groups of the songs.
- Plotted the results with PCA in both 2D and 3D to conclude and visualize the hypothesis.

Website: <https://github.sfu.ca/cfa60/cmpt353-million-song-dataset>

### Storybook

June - Aug 2022

#### Introduction to Software Engineering, SFU

- Developed in Android Studio using Java with a group of four to help dementia patients with memory recovery and provides online edit features for the caretakers.
- Created and designed the database with NoSQL database Firestore from Firebase for the APP to store accounts information and cloud storage for photos and videos.
- Devised the solution for syncing with the database, receiving real-time feedback and APP usability without internet to optimize UX.
- Implemented and designed the creation of family member entries with information, avatar and their links to the medias for the APP users to interact with.
- Designed UI with layout files (.xml) with the advises from different groups of testers, maximums the experience of its aimed users.
- Followed the agile project management, by separating the project into three quick sprints, planned ahead features in each release for maximum teamwork and efficiency.

Website: <https://github.com/B1llySh1/276Project>

# Billy Shi - Page 2

## Technical Volunteer Experience

### Data Collector

May - July 2022

#### Gluxkind, Vancouver BC

- Collected training data using a dual camera to mimic the walking scenario of the stroller for its vision training.
- Labeled the captured picture using the Computer Vision Annotation Tool with different layers for the machine to distinguish.
- Picked out the wrongly labeled parts from the video generated by the trained model to revise the training model.

## Other Project

### Catch Me if You Can

Nov 2021

#### Digital Image Design, SFU

- Animated a short movie in After Effects in two weeks out of scratch without any online resources besides the soundtrack, received full marks from the instructor.
- Built the animations by following the motion principle to make them natural and smooth.

Website: <https://youtu.be/R27JoF9swew>

## Other Work Experience

### Produce Department Associate

Nov 2022 - Feb 2023

#### T&T supermarket, Burnaby BC

- Stocked fruits flexibly depending on the current customer needs and shifted slots to fit different fruits to satisfy the customer needs and stock availability.
- Solved customers' inquiries patiently with proper approaches to maximize customers satisfaction.

## Education

### Simon Fraser University

May 2020 – Expected Aug 2024

#### Burnaby BC

- BSc. Computer Science
- CGPA: 3.60 / 4.33 (Dean's honor roll)
- Upper Division GPA: 3.70