# KELSANG TSERING

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LinkedIn | Portfolio | GitHub

## SKILLS

**Languages**: Python, Scala, JavaScript, Ruby, Java, SQL, HTML, CSS.
**Technologies**: React, Node.js, Express.js, Ruby on Rails, Scio, Luigi, Flyte, Apache Flink, Apache Beam, Apache Avro, Apache Parquet, Google Cloud Platform, Dataflow, BigQuery, BigTable, Google Cloud Storage, Amazon Web Services (AWS), Amazon S3, Amazon EC2, Mongoose, PostgreSQL, MongoDB.
**Tools**: Git, Docker, Kubernetes, sbt, npm, Webpack, Jira, Ratatool, Jasmine, Jest, VS Code, IntelliJ Idea, Grafana, Mural.
**Concepts**: RESTful API, CI/CD, MVC, ORM, RDBMS, NoSQL, Test-Driven Development, Scrum, Agile.

## EXPERIENCE

**Associate Data Engineer** Aug. 2023 – Feb. 2024
*Spotify* *New York, NY*

- Created and maintained data pipelines, written in **Scala** and **Python**, that perform **ETL** functions and process terabytes of data every day
- Performed advanced **SQL** queries on datasets to investigate potential discrepancies within geographic data
- Refactored multiple downstream pipelines to use a newer and improved upstream dataset, eliminating complexity and enforcing a single source of truth in the Spotify for Artists (S4A) platform
- Implemented **unit testing** in data pipelines supporting the S4A platform, ensuring data passed checks and validations prior to being viewed for analysis by other teams
- Investigated and removed deprecated pipelines in the S4A platform, contributing to the team goal of reducing tech debt
- Authored a plan to refactor pipelines in the Fans First campaign system to use standardized internal tooling and replace **API** calls with a direct-to-database query, ensuring standardization of workflow styles, enabling improvements in pipeline runtime efficiency, and leading to potential cost savings
- Charted the Fans First campaign system's data infrastructure onto **Mural**, allowing future collaborators to easily visualize data transfers and transformations within the system.

## PROJECTS

**Memory Hacking Project - Spotify** | *Python, Scala, Luigi, Scio, Dataflow, BigQuery*

- Contributed to building the data infrastructure of an in-house, Full Stack application made with the purpose of helping patients affected by Dementia reconnect with their past through the medium of music
- Created a **Scio** and **Luigi**-based data pipeline that runs on **Dataflow**, consumes large datasets, performs nostalgia filtering logic, and outputs a **BigQuery** dataset containing popular songs based on demographic groupings
- Employed the use of **Ratatool**, a Spotify-built data generation tool, to create mock data for **unit testing** purposes, aiding in the increase of testing coverage in the pipeline
- Utilized various Spotify datasets to compute filtering logic to remove white noise tracks from the output dataset
- Optimized pipeline runtime efficiency by reordering dataset joins, prioritizing groupings between smaller datasets to reduce pipeline runtime
- Communicated actively with the backend team to enforce a standardized schema and ensure they were able to seamlessly query the output **BigQuery** dataset to generate playlists for the user.

**Rainier** | *JavaScript, Ruby, React, Ruby on Rails, PostgreSQL, Amazon S3* Live | GitHub

- Built a Full Stack clone of Amazon utilizing **React** and **Ruby on Rails**
- Created a shopping cart system with **CRUD functionality**, enabling users to add/remove/update items in their cart
- Developed fully encrypted user authentication using **BCrypt**, creating a secure method for users to sign up, in, and out
- Leveraged **Amazon S3** to store seed files for products and retrieved them using Rails associations.

## EDUCATION

**App Academy** Jan. 2023 – Apr. 2023
*Full Stack Web Development Program* *New York, NY*

- Immersive 16-week Full Stack web development program with a $< 3$ % acceptance rate.

**Baruch College: Zicklin School of Business** Aug. 2017 – June 2021
*Bachelor of Business Administration in Finance, Minor in History* *New York, NY*

- GPA: 3.756/4.0 *magna cum laude*
- Honors: Enrolled in Dean's Scholars Program, Dean's List (Awarded 7 times), Awarded Full-Tuition Scholarship.