

Param Singh

http://param.codes

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SKILLS

- **Programming Languages:** Python, Ruby, C++, C, JavaScript, Java, Go
- **Technologies:** Docker, PostgreSQL, Flask, Django, InfluxDB, Google BigQuery, Apache Spark, cron, git, vim, React

EXPERIENCE

- **SingleStore** Lucknow, India (Remote)
Software Engineer, Managed Service *February 2023 - Present*
 - Classified customer organizations as internal vs external, this data is used for metrics and team direction.
 - Improved developer experience by collecting test flakiness data from GitLab, putting it into a SingleStore data warehouse and running analytics to decide high priority tests to fix.
- **Stripe** Dublin, Ireland
Software Engineer, Secure Frameworks *August 2019 - January 2023*
 - Working on scoping, design and development of libraries for Stripe developers, like web security frameworks, to systematically protect Stripe against common threats.
 - Standardised the Stripe codebase to use a central templating library to guarantee protection against Cross-Site Scripting (XSS).
 - Implemented a framework for capability URLs used by products across Stripe, like Invoices and Receipts. The framework provides security guarantees for unauthenticated URLs such as expiration and unguessable URLs. Collaborated with teams to help them migrate to the framework in a reliable manner.
 - Core contributor to various other secure frameworks like Secrets and Cryptography Frameworks, and an Access Controls and Authorization framework for Stripe's internal Admin tool.
 - Improved security posture and product quality of SSO in the Stripe Dashboard by proactively using threat modelling and user feedback.
 - Led project to fill security gap in SSO by verifying customer domains every day, protecting them against account takeovers.
 - Reduced p99 SSO login latency by 75%, making SSO more reliable and efficient.
- **MetaBrainz Foundation Inc.** *October 2017 - August 2019*
Software Engineer
 - Responsible for maintaining and adding new features to ListenBrainz.
 - **ListenBrainz Recommendation System:** Created a recommendation system running on an Apache Spark cluster using ListenBrainz data. Wrote code for loading ListenBrainz dumps into Spark, training models and then recommending tracks.
 - **Data Dumps:** Worked on a system to create automatic data dumps for the music listening history for ListenBrainz (around 3000 users with 150M recorded listens) stored in InfluxDB and PostgreSQL. Also, wrote scripts to move this data to the MetaBrainz FTP server.
- **MetaBrainz Foundation Inc.** *May 2017 - August 2017*
Software Engineering Intern
 - **ListenBrainz Beta:** Worked on the beta of the ListenBrainz project, an open encyclopedia of music listening histories of people, adding numerous features and fixing bugs. Worked on the data architecture of ListenBrainz archiving data in InfluxDB and submitting to Google BigQuery.
 - **Statistics in ListenBrainz:** Worked on a Google BigQuery based statistics module to retrieve statistics for users from the music listening histories they submit. Wrote code that calculates statistics using Google BigQuery and then stores them in PostgreSQL to later show them to the users.

EDUCATION

- **National Institute of Technology, Hamirpur** Hamirpur, H.P.
Bachelors and Masters in Computer Science; GPA: 9.06 / 10 *Aug. 2014 - May. 2019*

PROJECTS

- **Param's Adventures:** Daily text based adventure games based on ChatGPT with illustrations via Dall-E 2
- **Aiku:** Wrote a bot using GPT-3 to create haiku like poems from two word prompts.
- **Funnel.fyi:** Created a service to help job-seekers track their job applications, visualize progress and make decisions based on data. Used by around 500 users.