

PURVA SINGH

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Education

Georgia Institute of Technology

MS Computer Science

Aug 2021 – May 2023

Atlanta, GA

Vellore Institute of Technology

BTech Computer Science and Engineering

Aug 2014 – May 2018

Vellore, India

Technical Skills

Languages: C++, Python, Scala

Web technologies: ReactJS, Angular, Apollo Client, GraphQL, Ruby on Rails, Figma

Code Scanning: SonarQube, Blackduck, SSAP

SDLC: Agile, Confluence, Jira, Scrum, Shortcut

Tools: Git, Github, Bitbucket, Visual Studio Code, Jenkins, Jest, Chromatic

Achievements

Meta Global Hackathon, 2022: Ranked 141 amongst 3000+ students globally and 18 in North America region.

Grace Hopper Conference, India (GHCI), 2019: Conducted 90 minutes hands-on workshop on ethical hacking and penetration testing for 120+ participants. First person from J.P. Morgan to be selected as a speaker at GHCI.

Experience

Chan Zuckerberg Initiative (CZI)

Redwood City, California

Software Engineer Intern | **ReactJS, Apollo Client, GraphQL, Ruby on Rails, Figma**

May 2022 – Aug 2022

- Built **content favoriting** feature for CZI's **Along** tool that allows teachers to mark Along's resources as favorite and view their favorited content in a separate page.
- Generated **Active Record Migrations** to evolve Along's existing schema to support content favoriting. Implemented **polymorphic associations** and wrote extensive **test cases in Ruby**.
- Created **GraphQL query type** to describe different types of content that can be queried and wrote **mutations** to allow teachers to favorite or unfavorite a library resource.
- Leveraged **GraphQL** to fetch data related to content favoriting to be displayed on UI. Implemented UX-approved layouts using **Apollo Client** with **ReactJS** as framework.

J.P. Morgan Chase & Co.

Bangalore, India

Associate Software Engineer | **Python, Geneos, Jenkins**

Feb 2021 – Jul 2021

- Built a **python-based tool** to **recon data between Raw and Conform tables** across intra-cluster/data-center.
- Leveraged Python data structures (**dataframes**) and libraries (**Pandas, NumPy, requests**) for data transformations.
- Published recon data for **real-time monitoring on Geneos**.
- Wrote extensive **unit and integration test cases** using Python's testing libraries (**unittest**).
- Performed **code quality/coverage checks** using **SonarQube**, and **remediated code vulnerabilities** via **SSAP** and **BlackDuck** scanning. **Built, tested and deployed code using Jenkins** to private cloud.

Software Engineer | **Python, Scala**

July 2018 – Jan 2021

- Developed a **python-based framework** to perform **file-level pre-processing and for seamless data movement** between various **source systems and HDFS**.
- Introduced a **token-based (JWT) authentication and authorization mechanism** in all the applications written in **Scala**, that replaced legacy authentication mechanism firm-wide.
- Worked on multiple Scala libraries (**Akka toolkit, scalaz, jsonwebtoken, json4s**), Scala concepts (**sequence comprehension, trait, (case)classes, pattern-matching**), and complex Scala data structures (**Future, ValidationNel, Either**).

Software Engineer Intern | **Scala, Angular, Kafka, ELK Stack, Zuul, Eureka**

Jan 2018 – Jun 2018

- Developed a **interactive framework** that served as a **real-time monitoring interface to track data ingestion process and provided actionable insights** to minimize the production incident efforts.
- It consists of **microservices** like **events service, process monitor, notification alerts, etc.**
- Leveraged **Kafka** for monitoring data ingestion flow, **Eureka** for service discovery, and **Zuul** for load balancing. Used **ELK stack** for storing and visualizing framework logs.