# Purva Singh

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## Education

**Georgia Institute of Technology**                                                      **Aug 2021 – May 2023**
*MS Computer Science*                                                                            *Atlanta, GA*

**Vellore Institute of Technology**                                                     **Aug 2014 – May 2018**
*BTech Computer Science and Engineering, GPA: 8.55/10*                                      *Vellore, India*

## Technical Skills

**Languages**: Python, C++, Scala, C, HTML/CSS, Angular, PHP, MySQL
**Code Scanning**: SonarQube, Blackduck, SSAP
**SDLC**: Agile, Bitbucket, Confluence, Jira, Scrum
**Developer Tools**: Git, Github, Bitbucket, ITRS Genos, IntelliJ, Jupyter, PyCharm, Jenkins

## Experience

**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.

## Leadership

**Technology For Social Good**                                                               **2018 − 2020**
*Software Developer*                                                               *J.P. Morgan Chase & Co., India*

- Worked as **volunteer** from J.P. Morgan to **build ad-hoc technologies for our external partners.**
- Created a **web application using HTML/CSS & PHP** to train **differently-abled children** for **data-entry jobs.**
- Designed and developed a **training module** to teach basics of **MS Excel, Word & PowerPoint** to students via embedded **GIFs & training videos.**
- Leveraged **positive reinforcement strategy** to **encourage students** throughout the training module.
- Integrated **speech-to-text converter** to train students diagnosed with **Cerebral Palsy.**

**Grace Hopper Conference, India**                                                                **2019**
*Speaker*                                                                                   *AnitaB.org, India*

- Conducted a **90 minutes** workshop on **Ethical Hacking and Penetration Testing**, for **120+ participants**.
- **First person from J.P. Morgan** to speak at the Grace Hopper Conference, India.
- **Collaborated with AWM Tech Diversity & Inclusion Committee** at J.P. Morgan to conduct various workshops globally on **demystifying technical writing and paper presentation** at the GHC.