

# Shivangi Singh

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<https://github.com/Shivi127>

## EDUCATION

**University of Massachusetts Amherst**  
Bachelor of Science in Computer Science

**Amherst, MA**

**GPA: 3.75**

## RELEVANT COURSEWORK

Object-Oriented Programming, Software Development, Web Programming, Artificial Intelligence, Machine Learning, Information Retrieval, Database Management, Data Visualization.

## SKILLS

**Proficient:** Python, Go, Java, HTML, CSS, JavaScript, React.js

**Databases/Others:** SQL, PostgreSQL, MongoDB, AWS (S3, EC2, ECS, Zookeeper), Docker, Vault.

## PROFESSIONAL EXPERIENCE:

**Software Engineer 2**

**Oracle New York, NY**

**Sep 2019- Present**

**Technologies:** Go, Python, Databases, AWS (ECS, S3, EC2), Linux, Kafka, Docker, Grafana, Prometheus, Terraform

- **Reduced ad lookup latency by 10%** by replacing S3 with a PostgresDB.
- Streamlined deployment process by writing shell scripts **reducing 1 hour of developer time**.
- **Reduced latency of Kafka system by 55%** by performing code analysis using pprof profiling.
- Collaborated on a team of three to migrate YouTube from Server to Server to ADH.
  - Implemented queries to extract impressions, metrics from the Google Ads Data Hub.
  - Implemented UDF's with dockerized Integration tests.
  - Implemented the pipeline to upload S3 files to tables in Google Big Query at timed intervals.
  - Implemented monitoring system with Grafana and Prometheus.
  - Templated queries via Jinja to reuse repeated portions.
- Analyzed discrepancies between metrics between S2S and ADH updated them to meet MRC guidelines **reducing discrepancy to 3%**.

**Software Engineer**

**American Express New York, NY**

**Feb 2019- Sep 2019**

**Technologies:** Java, React.js, Node.js, XML, JavaScript, jQuery.

- **Lead/mentored a team of 6 interns** over the summer to help deliver their summer project.
- Acting Scrum Master, responsible for organizing team meetings, clearing blockers, coordinating with the product owners about deliverables.
- Coordinated offshore calls, cleared blockers, plan in an agile environment.
- Implemented the frontend for Amex's first small business application in Singapore
- Made sure that the applications were accessible to screen readers and compatible with multi devices.
- **Improved performance of old application by 12%** by uplifting the application to ReactJS.
- Coordinated with the product team to drive the project on requirements and delivery.
- **Increased applicant retention by 60%** by integrating My Info prefill services.

## PROJECTS:

**DeviceHealth**

**Hewlett Packard Enterprise (HPE)**

**Technologies:** HTML, CSS, JavaScript, Node.js, Express.js, MongoDB

- Collaborated with a team of six to develop a web application that lets HPE users manage/custom the alerts on their devices.
- Followed the Waterfall Lifecycle model to lay out the process plan.
- Outlined the Use Cases, layered out the UML Diagrams for the Low-Level Design Document.
- Set Up the database in MongoDB and connected it to the backend using Node.js along with Express.
- Set up the POST/PUT/GET requests for the application which made real time calls to the database. (RESTful)
- Created the Login-Page for the application using HTML, CSS, JavaScript, Bootstrap.

**MyAndroid**

**Technologies:** Java, Python, Android Studio, Machine Learning Library: sci-kit learn

- Led a team of three to develop a mobile application using Machine Learning classifiers like SVM, Random Forest, Decision Trees from the sci-kit-learn library to perform various classification tasks.
- Successfully connected the application to record the accelerometer reading from the phone in Java.
- Performed preprocessing data cleaning for the recorded data to remove orientation dependencies, ran tests, made visualizations to find the threshold for activity classification using zero-crossings.
- Implemented the activity classification using Supervised Learning by implementing various features for the data, like mean axis value, number of crossings taking in account the window size.
- Analysed various classification algorithms like decision trees, random forests with different parameters and were able to increase the accuracy to 92%.