

## WORK EXPERIENCE

**Software Engineer** ATEC Wireless, NJ Jan 2020 – May 2020

- Built an automatic module on **python** that recommends the changes for the configuration in the mobile tower.
- Clustered the data using scikit-learn k-means algorithm and achieved 39.13% improvement in the network KPI.
- Designed the UI on **dash framework** for training the model and model visualization.

**Teaching Assistant** New Jersey Institute of Technology, NJ Jan 2020 – Dec 2020

- Data Structure and Algorithms:** Implemented and demonstrated generic **abstract datatypes** using **Java**.
- Intro to Artificial Intelligence:** Wrote **bash shell script** to automate testing and grading for 80 students.

**Software Engineer** Perennial Systems, India Aug 2017 – Jul 2018

- Implemented analytical dashboard backend on **Spring Boot** using **REST** and added the filters using **servlets**.
- Adopted **agile** methodology (**SCRUM**) with stakeholders throughout SDLC to resolve issues by maintaining logs.
- Created configuration mappings using JSPs and POJOs. Reduced 15% load on Tomcat server by using cache.
- Provided backward compatibility for the new and existing website. Completed 80% Junit code coverage.

**Software Engineer** DNA Websolutions, India Jun 2016 – Aug 2016

- Wrote **multi-threaded cron** job in java to email reports generated by the analytics dashboard.
- Fixed 50+ **SQL injections**. Integrated Twitter, Facebook and WhatsApp connectors to the application.

## EDUCATION

**M.S. in Computer Science** GPA 3.6 New Jersey Institute of Technology, Newark, NJ Jan 2019 – Dec 2020  
**Courses:** Cloud Computing, Big Data, Internet Higher Layer Protocol, Data Analytics, Software Project Management

**B.E. in Computer Science** GPA 3.2 Dayananda Sagar College of Engineering, IND Aug 2013 – Jul 2017  
**Courses:** Operating System, Object Oriented Programming (OOP), Computer Architecture, UNIX & Shell Scripting

## PROJECTS

**RESTAURANT REVIEW APP (MONGODB, EXPRESS, REACT, NODEJS)** Jan 2021 – Feb 2021

- Built a full-stack web application for restaurant reviews using MERN Stack and hosted it on MongoDB Realm.
- Imported modules, created the Routes and defined the server-side database schema.

**Global News Filtering (Scala, Spark, Hadoop, AWS EMR, S3, Zeppelin)** Sep 2020 - Nov 2020

- Gained the speed by 250% by increasing the number of slave nodes to filter the data from the GDELT project.
- Founded which political figure to what crime is trending in which country with respective sentiments.
- Used Spark on Hadoop to import S3 data to local EMR. Performed Scala query on the Zeppelin notebook.

**Equity Portfolio Management (R, tidyverse, JUPITER, Yahoo Finance API)** Jan 2020 - Apr 2020

- Returned 32.4% profit by finding the optimal days interval with a “buying-high strategy” for the stock of \$5m.
- Developed R code from scratch to purchase 5 stocks from 10 largest tech companies using Yahoo Finance API.
- Incorporated the strategies of 5 days rebalancing of buying high and low that gave 7.4% and -3% profit resp.
- Added the feature of issuing stock dividends and plotted high-tech index curves.

**Globally Accessible Home Automation (Python, Raspberry pi, Yowsup wrapper)** Aug 2019 - Dec 2019

- Created a Home Automation system to turn on/off electrical appliances by sending WhatsApp messages.
- Reduced electricity consumption by 40% using sensors and smart timers to Raspberry Pi on the backend.

**Waiting queues at the airport using Queue (Java8, Abstract data type)** Feb 2019 - May 2019

- Optimized the serving rate for the passengers at the airport by 30% using waiting queues in Java.
- Simulated the check-in operation on airline base model with random arrival rate and serving rate.

## Skills

- Programming Languages:** Java, C, C++, Python, R
- Front End:** HTML, CSS, JavaScript
- Frameworks:** JSP, JDBC, Spring Boot, MVC, Hibernate, MPI, OpenMPI, NodeJS
- Databases:** MySQL, Oracle SQL, H2, Hbase, PL/SQL, MongoDB
- Web Services:** REST, SOAP, JSON, XML
- Tools:** Git, Weka, JIRA, Hadoop, AWS, MS Office

**CERTIFICATIONS:** Coursera: Principles of Software Design, Advanced Relational Database and SQL