

Viraj Nilakh

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EDUCATION

Masters in Software Engineering, San Jose State University
Bachelors in Information Technology, Mumbai University

Graduation: May 2018 / GPA:3.82
Graduation: June 2015 / GPA:3.02

TECHNICAL SKILLS

Programming Languages: Java, JavaScript, Python.

Technologies: Spring, SpringBoot, Hibernate, React, Flow, Jest, Webpack, Flux, Express, NodeJs, Tomcat, EJS, MongoDB, MySQL, Netty, Protobuf, Redis, Cassandra, AJAX, JQuery, Flask, SQLAlchemy, OpenMP.

Applications: Docker, Git, IntelliJ, Pycharm, Unity, Eclipse, Unity, Visual Studio, Android Studio, Sublime, NetBeans

Cloud Technologies: Cloud9, AWS Lambda, EC2, S3, Heroku, Docker cloud, Firebase.

Tools: Git, Bash, Selenium, Appium, Test Rail, Jira.

PROFESSIONAL EXPERIENCE

Software Engineer I, Vera Security Inc.- Palo Alto, CA (Full Stack)

Sept 18-Present

Trusted Partner Apps Java | Spring | React | Flux | REST | Auth

- Developed a **full stack** web functionality to provide our partners the ability to gain authorization for using Vera DLLs.
- Provided design solutions to integrate partner SDK's functionality with Vera desktop app & client's tenant seamlessly.
- Used **Java's Spring Framework** to create authorized **RESTful API** endpoints to validate partner apps.
- Developed partner apps page using **React** and **Flux** for handling data flow between various React components.
- Analyzed security vulnerabilities and provided solution to prevent a password leak from compromising all the tenants.
- Implemented a secure channel by using Diffie Helman for preventing MITM attacks and data tampering.
- Achieved extensibility by providing capability-based access control system to address changing future requirements.

Browser Extension React | React Hooks | ES6 | Flow | Jest | Webpack | Polyfill

- Developed a web extension for opening, editing and saving a secure file natively from Sharepoint online.
- Played a pivotal role in closing one of our biggest clients generating about 1 million dollars of ARR for the company.
- Used by many of our enterprise users to access their secure files natively across chrome, edge and firefox browsers.
- Achieved a single maintainable code base working on all 3 browsers with a consistent flow using **webpack & polyfill**.
- Achieved extensibility using well-structured **React** components and hooks which change as per the client response.
- Prevented DOS attacks and unauthorized **API** access at the desktop client using native messaging.
- Pioneered static type checking using **Flow** and TDD using **Jest**, achieving a code coverage of about 90%.

Software Intern, N3N Inc.- Foster City, CA (Full Stack)

July 17- May 18

Rule Engine Bootstrap | EJS | Express | NodeJs | Ajax | JQuery | Mongoose | Big data | Spark

- Developed a **full stack web application** to visualize IOT devices as graphical nodes.
- Manipulating **API** responses of these IOT devices by attaching user-defined functions, graphically, as nodes.

Data-Visualization UI Creator Tool React | NodeJs | MongoDB | Open Source | D3 Js | JQuery

- Created a data-visualization solution using various UI elements and saving its configuration in **MongoDB**.
- Implemented **CRUD** on these UI elements belonging to different data-visualization solutions as per convenience.

ACADEMIC PROJECTS

Distributed File Storage System Java | Netty | Protobuf | Raft | Redis | MySQL

- Provided file storage on a distributed cluster infrastructure portraying high availability, fault tolerance and scalability.
- Implemented Raft consensus algorithm for leader election & log replication to provide serializability across the cluster.
- Provided dynamic node addition and deletion to the cluster with the help of timers and heartbeats.
- Used **Java's Netty framework** for asynchronous event driven application, **Redis** for node registration and discovery, **MySQL** for handling files and **Protobuf** for high speed communication.
- Integrated with 5 more clusters (3 nodes each) in a ring with common API for compatible read, write behavior.
- Implemented work stealing, design patterns, write replication and multithreading.

XYZ Scalable BurgerShop SaaS Web-App React | GO | NodeJs | Cassandra | Riak | AWS | Microservices | Heroku

- Achieved XYZ Scalability i.e horizontal node duplication, Microservices as functional decomposition and data sharding.
- Ensured Horizontal scaling by using **AWS load balancer** along with auto-scaling group and Heroku.
- Created **RESTful Microservices** in **GO** having separation of concerns with less coupling and high cohesion.
- Applied data sharding across **Cassandra** (Multiple regions EC2 instance) & **Riak** clusters (Single Region EC2 instance).
- Achieved High Availability and Partition Tolerance using Cassandra with Ec2MultiRegionSnitch configuration

Cognitive Nutrition Data Analysis for Diabetics Android | Java | REST | Firebase | MongoDB | Machine Learning

- Developed an application to provide food recommendation for diabetics based on their blood glucose level.
- Used Yummly's **REST API** to get a list of food depending on current blood glucose level of the diabetics.
- Provided appropriate food recommendations by running our Machine learning algorithm over food choices.
- Used **Firebase** for email authentication, deploying our algorithm over cloud and **MongoDb** Atlas for storing user data.