

# Venkata Sessa Phani, Vakicherla

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Portfolio: <https://vvsphani.com/>

## Education

### University of Illinois Chicago

Master of Science – Computer Science

### Birla Institute of Technology and Science – Pilani

B. E. (Hons) – Electrical and Electronics Engineering

Chicago, Illinois

Aug 2022 – May 2024

Pilani, India

Aug 2013 - May 2017

## Skills Summary

**Programming languages:** TypeScript, JavaScript, PHP, SQL, PL/SQL, Scala, Python, Java, Ruby

**Frontend:** React, Redux, Angular, VueJS, HTML, CSS, D3.js, Bootstrap, Bulma, Material UI, Web development

**Backend:** Node.js, Ruby on Rails, SpringBoot, Laravel, ExpressJS, Django, Kafka, Apache Hadoop, gRPC, Proto3, Flask, Logback, Sequelize

**QA and Test Frameworks:** Jasmine, Jest, Supertest, karma, pytest, JUnit, NUnit, Mockito, Mocha, ScalaTest, Selenium

**Databases:** PostgreSQL, MySQL, Oracle, MongoDB, Redis, Maria DB, MS SQL, SQLite

**Cloud Platforms:** Amazon AWS, Microsoft Azure, Azure DevOps

**Tools:** Git, Github, CI/CD, Docker, Docker Compose, Kubernetes, Scrum, Agile, SVN, Linux, Tableau, Jira

## Professional Experience.

### Senior Software Development Engineer, Dubai Ports Pvt. Ltd., DP World, India

Nov 2020 – April 2022

- Cargoes Logistics:** Developed an enterprise-level distributed micro-service-based application for user authentication, RMS, Exchange Rates, and Locations, achieving zero downtime. Managed race conditions using Redis mutex locks.
- Cargoes Azure Cloud:** Implemented Azure DevOps CI/CD pipelines for microservices deployment on AKS, reducing deployment time by 200%.
- Cargoes Rates:** Optimized a tender-based freight forwarding application in Node.js and Angular by setting up Newrelic as an app monitoring tool and papertrail resulted in endpoints performance improvement by around 40%.
- Route Management System:** Revamped a platform, that calculates the best possible routes between two locations, and supplies the prices for different freight services along the route which decreased the rate upload times by 300%.

### Full Stack Developer, Tapclicks, San Jose, CA, United States

Nov 2018 – Nov 2020

- App Performance:** Designed a Worker Framework for background job processing, boosting application efficiency by 30% through parallel execution.
- Async API Framework:** Modernized event-driven PHP architecture using Worker Manager with web sockets, pub-sub, and Redis caching for seamless UI updates resulting in a 20% reduction time.
- Keyword Rank Tracker:** Launched a Vue.js and PHP keyword rank tracking application handling 2 billion rows of data monthly with a mean response time under 150ms at the 95th percentile.
- Site Auditor Tool:** Integrated Raven's site auditing API in PHP and built dashboards in Angular with around 90% integration test coverage.

### Full Stack Developer, Reportgarden, San Francisco, CA, United States

June 2017 – Nov 2018

- Customer Tech Support Lead:** Handled 500+ tickets within tight SLAs, aiding a 10% churn reduction through effective technical support and fixes.
- Live Report & Dashboards:** Developed features for reports and dashboards using Ruby on Rails and ReactJS, boosting user engagement by 25%.

### Software Development Engineer Intern, Strac Incorporated, Seattle, United States

May 2023 – Aug 2023

- Browser DLP Extension:** Completed a browser extension within one month to detect Personally Identifiable Information (PII) by intercepting post requests (fetch, xhr, websockets) on platforms like ChatGPT & Google Bard. [Extension Link](#)
- Multi Factor Authentication:** Integrated MFA system with authenticator apps using AWS Amplify and Amazon Cognito which enhanced security.
- Github DLP Bot:** Created a bot that can parse millions of lines of code within seconds using Tree-Sitter a GLR AST parser and find PII information.
- Enhanced UI/UX:** Engineered PII Dashboards in ReactJS, leveraging Google React Charts which eliminated the necessity for manual report generation, resulting in a significant saving of 20-man hours/week.

### Web and Database Developer, University of Illinois Chicago, IL, United States

Jan 2023 – Present

- Web Application Development:** Engineered, deployed, and maintained web applications using ReactJS NodeJS, Express, Laravel, and MySQL.
- App Deployment and Support:** Orchestrated deployment on CentOS7 virtual machines, improved the performance of critical APIs by up to 40%.

## Academic/Personal Projects:

- Log Analysis and Scalable Processing (AWS[EMR, S3, EC2, Lambda], Scala, gRPC, Hadoop) [Architecture](#)**  
Built a powerful log analysis solution in Scala, employing cutting-edge big data techniques to tackle massive log files.  
Engineered a robust application using Hadoop MapReduce capable of efficiently handling substantial data volumes on an Amazon EMR cluster.
- Urban Pulses and its Social Fabrics (Angular, D3.js, NodeJS, AWS [EC2, Certbot], Java) [Live Link](#), [Documentation](#)**  
This project visualizes the urban cities and its social fabrics by creating an interactive visualization dashboard using a mix of computational topology techniques using reeb graphs, merge trees, scalar functions using piecewise linear function on a triangular mesh) and advanced text mining methods.
- Personal Portfolio (AWS [S3, Cloudfront, Route53, ACM], HTML, SCSS, JS, CI/CD) [LiveLink](#), [Documentation](#)**  
Hosted on AWS S3, accelerated by CloudFront, and secured with Route 53 and ACM with updates through GitHub Actions streamline deployment.
- GDriveApiExplorer (NodeJS, Docker Compose, Docker, Ngrok) [Documentation](#)**  
Developed a real-time Node.js app using Google Drive API to facilitate file listing, downloading, and tracking of user access, instantly updating the interface upon user additions or removals.