

# VENKAT SUMANTH REDDY VADDE

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## EDUCATION

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**University of Southern California | Los Angeles, California**

**August 2022-May 2024**

*Masters of Computer Science - Courses - Analysis Of Algorithms, Database Systems*

**Vellore Institute of Technology | Vellore, India**

**July 2017-June 2021**

*Bachelor of Technology in Information Technology - GPA : 9.29 / 10*

## EXPERIENCE

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**Amadeus Labs | Software Development Engineer 1**

**August 2021-July 2022**

- **Development** : Introduced new features, integrated API's, designed regression suite and troubleshot incidents. Built shared libraries, established data caching solution, overhauled legacy codebase and improved code coverage upto 90 percent
- **Application Cloud Migration** : Collaborated with architects to engineer migration strategy and high level design for product migration. Deployed pilot implementation onto Amadeus Cloud Services hosted on Openshift for initial validation
- **Configuration Manager** : Outlined requirements and developed REST based application for managing configurations across 6 different phases, resulting in directly saving 275 days of developer effort and scaled down implementation time by 50 percent
- **Report Generator** : Built scalable Splunk based solution to provide 3 major airlines with operational and delivery statistics
- **Data Recovery Tool** : Revamped data recovery tool for better performance, led to 2x faster retrieval of purged records
- **Incident Management** : Devised solutions through automation to target bottlenecks, resulting in 20 percent fewer incidents

**Amadeus Labs | Software Development Intern**

**January 2021-June 2021**

- **Observability Platform** : Launched a platform to trigger 'Chaos Engineering' experiments as part of system stability initiative, to accurately validate resilience of micro-services which resulted in dramatic improvements to incident response time
- **Monitoring Dashboard** : Integrated API's of Prometheus and Google Charts with React frontend for functional metrics
- **Backend Services** : Streamlined perturbation service by integrating 2 plugins; built backend on Mongo DB to track results

**Techvedika, BigAI | Software Development Intern**

**May 2019-June 2019**

- **Character Recognition Module**: Deployed model for character recognition of vehicle license plate which then served as module in pipeline. Segmented characters using Connected Component Analysis and achieved an accuracy of 91 percent

## SKILLS

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**Languages** : Java, Python, JavaScript, CPP, Typescript, Go, HTML, CSS, Shell Scripting

**Frameworks / Web / Database** : React JS, Express JS, Node JS, Mongo DB, SQL, Google Test Lib

**Developer Tools** : Git, Docker, Kubernetes, Postman, Jenkins, Bitbucket, Confluence, Prometheus, Grafana

## PROJECTS

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**Detection and Prevention of Phishing Attacks by Deep URL Inspection** : *Python, Node JS, AWS*

- Web extension for detection of malicious websites based on ANN model hosted on cloud via deep URL inspection
- Orchestrated text analysis and NLP based feature extraction mechanism to accomplish an accuracy of 96 percent

**Assist Web App** : *HTML, CSS, JS, Express JS, Mongo DB, Leaflet API*

- Responsive graphical interface for identification of critical assistance points within a geographical boundary
- Leveraged API's for maps and formulated functions to add, delete, filter and update co-ordinates

**Automated Glaucoma Detection** : *Python, Scikit-Learn, OpenCV*

- Developed dynamic and adaptive algorithm to process retinal-fundus images to detect presence of glaucoma
- Computed cup to disk ratio by making use of Otsu Binarization technique and achieved 87 percent accuracy

**Connect Web App** : *React JS, Node JS, Mongo DB*

- Created a social network, enabling users to connect with other users via sharing posts and 'like, comments, profile'
- Integrated backend API built on Mongo DB with React frontend components along with performing extensive testing

## LEADERSHIP AND AWARDS

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**Leadership** : Led a team of 10 members to conduct technical talks and workshops in order to promote entrepreneurship

**Awards** : Awarded 'High Flyer' for contribution towards software development activities in Q4-2021 and Q2-2022 at Amadeus Labs