

# PAVAN SOMA SHEKAR

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## EDUCATION

Northeastern University, Boston, MA  
Master of Science in Information Systems

Expected May 2024

SJB Institute of Technology, Bangalore, India  
Bachelor of Engineering in Computer Science and Engineering

Jul 2019

## TECHNICAL SKILLS

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|---|--|
| • <b>Programming Languages</b>            | Java, Python, HTML, CSS, JavaScript, Typescript                                      |
| • <b>Web Frameworks and Libraries</b>     | Angular, React.js, Node.js, Express.js, Spring Boot, jQuery, Bootstrap, Tailwind CSS |
| • <b>Testing</b>                          | Unit Testing, Integration Testing, Jest, Enzyme, Protractor, Jasmine, Mocha, Chai    |
| • <b>Databases</b>                        | MySQL, MongoDB, DynamoDB, Hibernate, Sequelize.js                                    |
| • <b>Cloud</b>                            | AWS, Azure, GCP, CI/CD, Git, GitHub Actions, Packer, Pulumi                          |
| • <b>Data Science Tools and Libraries</b> | NumPy, Pandas, Sci-Kit Learn, Tensorflow, Matplotlib, Seaborn, OpenCV                |

## WORK EXPERIENCE

Software Engineer, OnSolve, Bangalore, India

Apr 2022 – Aug 2022

- Enhanced and integrated 12 front-end modules of the OnSolve Platform (OnSolve.UI, Incident Management, Risk Intelligence) using **React.js** and **Redux** to further boost application performance by 15%
- Implemented **unit tests** for front-end modules employing **Jest** and **Enzyme** for **React** with **code coverage** of over 90%
- Ensured high quality through stringent **code reviews** and administered two OnSolve.UI releases via **CI/CD** with **GitHub Actions**

Senior Systems Engineer, Infosys Limited, Bangalore, India

Sep 2019 – Apr 2022

- Drove innovation by playing a pivotal role in the development of three **Angular**-based web applications, effectively addressing evolving client needs and resulting in a 30% increase in client engagement
- Contributed to the Smart Classroom project at Infosys by developing a high-accuracy **YOLOv3** based chair detection model using **OpenCV** and a **MEAN** stack-based dashboard, significantly enhancing the interactive learning environment
- Played a key role in workforce development by conducting workshops in **JavaScript**, **Angular**, and **React.js** for 200 employees and providing **mentorship** to 10 new hires in the Foundation Program

Machine Learning Research Intern, Speckbit Exploratories, Bangalore, India

Jan 2019 – Mar 2019

- Devised a **Python**-based Air Quality Prediction model leveraging the Air Quality Dataset-UCI Machine Learning repository, yielding significant advancements in urban air quality forecasting
- Engineered a **machine learning** suite that accurately predicts urban benzene levels and temperature variations
- Utilized **Linear**, **Lasso** and **Decision Tree Regression**, achieving a 99.6% accuracy in urban air quality monitoring

## TECHNICAL PROJECTS

EduAssign (Node.js, Express.js, MySQL, Sequelize, Mocha, Chai, Packer, Pulumi, AWS, GCP) | Northeastern University

- Crafted EduAssign using **Node.js/Express.js** with **Sequelize** for **MySQL**, streamlining assignment management
- Executed **CI/CD** with **GitHub Actions** for automated testing (**Mocha/Chai**) and AMI creation via **Packer**, enhancing development workflow and deployment
- Augmented the infrastructure using **AWS EC2**, **Lambda**, **SNS**, **SES**, **Route 53** for DNS management and **Google Cloud Storage** employing **Pulumi**, emphasizing **load balancing**, **auto-scaling** and **CloudWatch** for comprehensive logging and monitoring

FoodZilla, a food delivery web-app (MongoDB, Express.js, React, Redux, Node.js, Firebase) | Northeastern University

- Built 3 out of 6 **full stack** modules using **MERN** stack, such as the auth flows (login, register, forgot password, email verification - all using **JWT**), add-to-cart feature, as well as the admin portal for inventory management
- Integrated **Stripe API** for seamless checkout and the **Tasty API** for suggesting different recipe options for consumers
- Leveraged **Firebase** as a cloud image store for the product inventory

Event Management System (HTML, CSS, Bootstrap, Java Spring Boot, Hibernate, MySQL) | Northeastern University

- Developed a fully-functional event management system using **Java Spring Boot**, **Hibernate**, and **MySQL**, allowing users to create, manage, and promote events through an intuitive user interface
- Architected the **database schema**, **REST APIs**, and **front-end** views to develop a scalable and maintainable system
- Established robust **email notification** and **image hosting** functionality, improving overall user experience and satisfaction

## CERTIFICATIONS

- Microsoft Certified AZ-900: Azure Fundamentals, Credential ID - H576-2553
- AWS Certified Developer - Associate, Validation Number - B1LNQCDJYM1EQ6WP