

# Sravya Vaddi

## Software Development Engineer

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### Experience

#### Singular Analysts Inc, USA | Software Developer

Sep 2024 – Present

- Crafted **RESTful APIs** with Swagger documentation to enable efficient communication between front-end and back-end components, ensuring reliable data exchange, faster response times, and enhanced application performance.
- Utilized **ReactJS** and **JavaScript** frameworks for front-end UI/UX functionalities, enhancing user experience and engagement while adhering to Web Content Accessibility Guidelines (WCAG).
- Implemented ORM techniques with **SQLAlchemy** and **PostgreSQL** to manage database schemas, ensuring efficient handling of relational data and improving query performance.
- Automated **Spring Boot** deployments with **Jenkins** and **Docker**, cutting deployment time by 50% and standardizing environments, contributing to a robust **CI/CD Pipelines**.
- Engaged in cross-functional collaboration with UX designers, product managers, and QA teams to streamline development, ensuring delivery of user-centric web applications through agile iterations and continuous feedback integration.

#### Cognizant Technology Solutions, India | Software Engineer

Oct 2020 – Oct 2021

- Implemented **API Gateway** caching techniques and **optimized database** design to reduce query response times from 4-6 seconds to under 200 milliseconds, significantly enhancing application performance and demonstrating strong analytical skills.
- Reduced operational costs by 20% through streamlined data management and automated deployments using **API Gateway**, **Lambda** functions, and **CloudWatch**, showcasing expertise in cloud platforms and cost savings initiatives.
- Led backend development with **AWS Lambda** and **PostgreSQL (RDS)**, implementing reusable **Python** frameworks to improve system performance and reduce future development time.
- Utilized **Docker** and **Kubernetes** for streamlined containerization and orchestration of microservices, implementing **DevOps** practices for seamless integration, resulting in a 20% increase in performance and enhanced scalability of software solutions.
- Created comprehensive API documentation with **Swagger**, expediting internal team onboarding and external integration readiness.
- Developed a robust backend using **Express.js**, integrating **WebRTC** and **Peer.js** for secure peer-to-peer video communication, which significantly reduced server response time and minimized connection drops.
- Engineered secure authentication flows with **AWS Cognito** and **Two-Factor Authentication**, enhancing production reliability through **TDD** practices and ensuring robust compliance with security standards.
- Deployed **STUN** and **TURN** servers, increasing connection stability by 70% and enhancing overall video communication quality.
- Built ReactJS forms with **TypeScript** and **DynamoDB**, cutting developer effort from 4 hours to 1 minute and saving \$200K annually, demonstrating strong product ownership and passion for technology.

#### AccrueSoft Services Pvt Ltd, India | Web Developer

Apr 2020 – Sep 2020

- Utilized **TypeScript**, **Python**, **Flask**, and **Express.js** for server-side development, enhancing app security through unit testing with **Mocha** and **Chai**, and participating in bug fixing while adhering to coding standards.
- Utilized **Angular** for code optimization and implemented **Agile** methodologies, resulting in increase in users and reducing customer complaints through extensive testing with **Jest** and **Enzyme**.
- Enhanced responsiveness with **React** and **Bootstrap**, saving over 7 hours of development time daily and improving overall software architecture.
- Revamped service availability through Zero Downtime Upgrade, leveraging **Kubernetes** and Cloud volumes to separate property data from **Docker** images, reducing maintenance downtime by 80%.

### Internship

#### MTX Group Inc, USA | Salesforce Developer

May 2023 – Aug 2023

- Streamlined business operations by designing and implementing custom workflows, approval processes, and validation rules, ensuring data accuracy and user efficiency.
- Enhanced user experience by developing **Lightning Web Components** integrated with **Apex controllers**, enabling seamless **data manipulation** and **real-time API communication**.
- Delivered actionable insights through custom reports and dashboards, providing stakeholders with key metrics to drive informed decision-making.

### Academic Project

#### University at Albany, USA | Developer

Aug 2024 – Dec 2024

- Developed a human-robot interaction framework integrating **TextRank** for keyword extraction and **A\*** for optimal pathfinding in **grid** environments.
- Implemented natural language processing workflows using **NLTK** for tokenization, lemmatization, and part-of-speech tagging to identify actionable keywords.
- Integrated **Convolutional Neural Networks (CNNs)** for real-time object detection and dynamic environment mapping, utilizing **TensorFlow** and **OpenCV** for seamless visual input processing.
- Utilized libraries like **Matplotlib** for grid visualization and **NumPy** for spatial calculations to ensure accurate and efficient navigation.
- Designed a multimodal system combining **NLP** and visual data to enhance contextual understanding and improve robot task execution in complex scenarios.

### Skills

**Methodologies** : Agile, SDLC, Waterfall

**Programming Languages** : Python, C, Java, SQL, JavaScript(ES5/ES6)

**Web Development** : HTML5, CSS3, React.js, Express.js, Node.js, Restful APIs, jQuery, Bootstrap

**Frameworks and Libraries** : Spring Boot, Django, SciPy, TensorFlow, Keras, PyTorch, Numpy, Pandas, React Hooks, EJS

**Build Tools, Platforms & Databases** : Amazon Web Services(EC2, S3, RDS, Lambda, Cloud Watch), Swagger, Docker, Git, GitHub, pgAdmin, Figma, Jenkins, CI/CD Pipelines, Microservices, PostgreSQL, MongoDB, SQLAlchemy, Visual Studio Code, Jira

**Certifications** : AWS Certified Cloud Practitioner, Salesforce Certified Platform Developer I

**Relevant Skills** : Operating Systems, Data Structures & Algorithms, Object Oriented Programming, Networking Fundamentals, Linux, Relational Databases, Mac, Windows, resource management, file systems, design patterns, asymptotic complexity, parallelism, and database schema design, Machine Learning Web Development, Micro-Services Architecture, TCP/UDP, IP

### Education

M.S., Computer Science | University at Albany, Albany, NY | **CGPA : 3.5/4**

Jan 2022 – May 2024

B. Tech., Electronics and Communications | K L University, India | **CGPA : 3.34/4**

Jun 2016 – May 2020