

Sanjay Katta

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SUMMARY

Graduate student in data science with three years' experience in the software sector. Highly proficient in JavaScript frameworks for web and mobile development. Looking for a full-time job where I can contribute to a team of like-minded people and solve business problems.

EDUCATION

Michigan Technological University

Jan 2021- Dec 2022

Master of Science in Data Science

(GPA - 3.88/4)

Coursework: Machine Learning, Artificial Intelligence, Advance Data Mining, Information Systems Management and Data Analytics.

SKILLS

Programming Languages and Frameworks: Java, Python, JavaScript, C#, React, Node.js, Express.js, Redux, Spring-Framework, ASP.NET, Apache Kafka, HTML, Shell Scripting, Hadoop, Hive, Apache Spark, Heroku, OpenCV, TensorFlow, Golang.

Tools: Jenkins, Git, Splunk, Postman, Docker, Kubernetes, Bitbucket.

Databases: SQL(MySQL), NoSQL (MongoDB).

Cloud: AWS (EC2, S3, Lambda, RDS).

PROFESSIONAL EXPERIENCE

Software Developer | Vtekh Inc - Chicago, Illinois.

May 2022 – Dec 2022

- Developed features in Encompass mortgage application by extending the plugins onto the client side using **C#** and **ASP.NET** framework.
- Automated a document storage procedure that can be used to store, modify and remove user loan documents in **Amazon S3** storage.
- Developed a Closing Calendar application where users can schedule, and reschedule loan meetings based on business conditions using **React V16**, **Node.js**, **HTML5**, and **CSS3**.
- Involved in Kubernetes deployment for microservices, including tools like **Amazon SNS**. Developed CI/CD system with **Jenkins** on **docker** for the runtime environment to build, test and deploy.
- Developed web solutions under the .Net framework creating dashboards, for developing applications that consume web services through an API.
- Integrated PayPal API by extending plugin to client side to send Invoices, to make and schedule payments to store in database using **C#** and **ASP.NET** Web API.
- Implemented searching and filtering of loans using **JavaScript** and **AJAX** where users can search for their loans using the name, id without refreshing the page.

Software Developer | Inel Power System Engineers Inc - Hyderabad, India.

May 2019 – Dec 2020

- Added routing and authentication for easy navigability and security through username and password.
- Developed React screens using **Stateless Functional Components** to overcome the drawbacks of Class Components.
- Involved in developing various Pipes like Custom Pipes for sorting data, Parameterized pipes, and also worked with Built-in pipes.
- Automated email notifications using Email.js and was involved in implementing **Gulp** and **Nodemon** to automate the development process.
- Used **Spring Security** for user authentication and authorization.
- Designed SPAs (Single Page Applications) using Directives, Services, Promises, Templating, Dependency Injection, and two-way data binding.
- Developed **RESTFUL** web services using Spring Boot with well-maintained modules like DAO Service Implementation, and Web Controller.
- Hands-on experience with **Object-Relational-Mapping** (ORM) frameworks such as **Hibernate**, **Spring JPA**, and **Spring JDBC**.

Software Developer | Nimmetry Inc - Hyderabad, India.

Jan 2018 – April 2019

- Developed custom components for a front-end user interface (UI) using **HTML5/CSS3**, **Angular V5**, and **Asp.Net Web API** for the backend. Created service calls to a web service to display data on graphs using **Google Charts**.
- Collected, cleaned, and provided modeling and analyses for structured and unstructured data (approx. 1 million records) used for major business initiatives using **R** and **advanced SQL queries**.
- Worked with **reactive forms**, template-driven forms, and written pipes in **Angular** to transform the data.
- Used Shell scripting extensively to build and execute SQL scripts, manage cloud environments, set up and maintain **AI** models on **AWS**, and managed **Hadoop** clusters.
- Implemented Angular features such as directives, dependency injection, and built-in pipes and implemented Lazy Loading and Routing.
- Used Test-driven development (TDD) for this web application with **Agile methodology**.

Research Assistant | Michigan Technological University | Houghton, Michigan.

April 2021 – Dec 2021

- Developed deep learning models using geospatial data to detect, classify, and segment different types of landslides on Mars.
 - Implemented object-detection and instance segmentation models for geospatial data of landslides on MARS.
 - Implemented various models with transfer learning like U-Net, Vision transformers, Mask RCNN, and Fast RCNN, and achieved an IOU of 70% for segmenting different types of landslides.
 - Analyzed and improved the existing object-detection model's accuracy by 15% with the addition of self-attention layers and convolution blocks into the network.
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ACADEMIC PROJECTS

Persona-Cloud based Image upload Application

- Developed a fault tolerant cloud-based image upload application using a microservices architecture.
- Developed front end using ReactJS and image upload and sharing APIs using Spring Boot.
- Developed a CI/CD pipeline using Jenkins to deploy containerized services on Kubernetes cluster hosted on Open stack-based Jetstream Cloud.
- Reduced inter process communication latency by 42% by using Apache Kafka, achieved a throughput of 816.7/sec and fault tolerance using Raft.

Business Intelligence for Restaurants

- The sales data contains around 10 million records from a demographic that includes restaurants in the Midwest and from across 3-5 brands. The data extracted is from the years 2018-2022.
- Validated the geopolitical landscape of restaurants and see how policy has affected the business both in COVID and outside COVID times
- Utilized top-level sales, guest counts, and price index across multiple brands, determining if there are key characteristics in political or geographical ranges driving increases or decreases.
- Incorporated other datasets that may explain other reasons why a restaurant is performing poorly and tested our hypothesis by using both an ARIMA (Autoregressive Integrated Moving Average) model and S-ARIMA model (Seasonal ARIMA) Implemented using KNN, SVM, RANDOM FOREST, CNN, LSTM and got high accuracy of 94%.