# Soumyendra Shrivastava

LeetCode [Top 3.1% in Contest] Code Signal (99th Percentile) LinkedIn GitHub
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## Research Papers

**Probabilistically Identifying Risk Metrics at Road Intersections using Federated Learning,**
*under Prof. Wencen Wu at SJSU, CA (upcoming paper)*

- Trained Yolov5 algorithm on 15000 data labels for detecting nearby cars and road signs with high accuracy.

**Skin Cancer Detection via Image Classification,**
*under Dr. Sudeep Thepade (upcoming paper)*

- Implemented TSBTC algorithm to accurately classify 7 distinct categories of 10,000+ cancer images

**Drone Cloud surveillance intelligence - State-of-the-art Solutions, Challenges, and Needs,**
*under Prof. Jerry Gao at SJSU, CA (upcoming paper)*

- Proposed a surveillance drone cloud with reference infrastructure, and, integration of drone technology with cloud computing and real-time data sharing

## Professional Experience

**Research Assistant** Apr 2023 Onwards
*San Jose State University* *San José, US*

- Developing software for autonomous cars to probabilistically identify risk metrics at road intersections using Federated Learning.
- Leveraged LeNet-5 Algorithm with Keras for weather classification on the simulated dataset obtaining 92% accuracy over 4 weather categories.
- Generated custom dataset using CARLA Simulator consisting 10,000 epochs of LiDAR, Radar and Image data for training autonomous vehicles.

**Software Development Engineer** Jul 2021 — Jul 2022
*Zetwerk* *Bangalore, India*

- Implemented a MEAN stack application to improve supply chain management of the clients, generating a revenue of 5 million USD for the company.
- Upgraded the existing supply chain management platform to accommodate multiple tenants and added reusable components resulting in reduction in further development time by 60%.
- Improved existing API calls for the Customer Dashboard by minimizing the response time to 300ms and enhanced code quality by 79%.

**Software Development Intern** Mar 2021 — Jun 2021
*Zetwerk* *Bangalore, India*

- Ensured code quality by writing shell scripts, configuring a custom dashboard for SonarQube and reducing sonar vulnerabilities from 120 to 40.
- Created an Eslint file using Airbnb style guide and refactored legacy code to reduce linting errors from 900 to 200.

## Technical Skills

**Languages**: Java, Python, JavaScript, SQL, HTML5, CSS, PHP, C++

**Technologies/Tools**: Amazon Web Services (AWS), Google Cloud Platform (GCP), Kubernetes, Docker, Tableau, MongoDB, CI/CD, Jenkins, Git, Ansible, Agile, ElasticSearch, Confluence, Jira.

**AI/ML Stack**: Scikit–learn, Tensorflow, PyTorch, OpenCV, D3.js, PyCaret, pandas, NumPy, TensorRT, MlFlow

## Education

**Master of Science, Software Engineering (Data Science)** **GPA: 4.00/4.00**
*San Jose State University, San Jose, CA* *May 2024 (Expected)*
Relevant Coursework - Data Mining, Machine Learning, Web and Big Data Mining, Deep Learning.

**Bachelor's in Information Technology** **GPA: 3.76/4.00**
*Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal, India* *Jul 2017 — Jul 2021*