# **Akash Rane**

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#### **PROFILE**

An aspiring Computer Science Engineer with a focus on machine learning and data analysis, currently pursuing a Master's in Computer Science. Proficient in Python, Data Analysis, JavaScript, and building Al-driven solutions.

#### **EDUCATION**

## Pace University, Seidenberg School of Computer Science and Information Systems

New York, NY

Master's in Computer Science | Concentration: Data Science & Software Development | GPA: 3.90/4

Dec 2025

#### SPPU - Savitribai Phule Pune University

Pune, India

Bachelor of Engineering in Computer Engineering | Concentration: Data Science | GPA: 9.4/10

Jul 2022

### **RELEVANT COURSEWORK**

Object Oriented Programming | Machine Learning | Advanced Data Structure | Data Analysis | Project Development | Cloud Computing

#### **TECHNICAL SKILLS**

Programming Languages: Python, C++, C, HTML, CSS, Java

Database Management: SQL, PL -SQL, Influx DB

Data Visualization Tools: Power BI, Node Red, Influx DB, Grafana

Libraries: Seaborn, Matplotlib, Pandas, OpenCV, Sklearn, Keras, TensorFlow

#### PROFESSIONAL EXPERIENCE

### **Optify Industrial Solutions Pvt. Ltd.**

Pune, India

Computer Science Engineer & Business Intern

Jul 22 – Dec 23

- Developed a Python project to deliver daily insights and reports to factory owners, improving decision-making efficiency.
- Designed user-friendly dashboards for the control panel system, enhancing usability and operational oversight.
- Developed OPC UA and other communication protocols for seamless integration with control panels using Python, enhancing system connectivity and automation.
- Facilitated on-site project implementation for 1 month to ensure smooth deployment and integration.
- Coordinated pitch deck creation and delivered funding pitches, securing government grants for the company.

### **PROJECTS**

## **Automated Operational Analytics and Reporting**

Month Year – Month Year

- Developed a python automation script leveraging Matplotlib, Pandas and Influx DB, to streamline data processing and generate daily operational reports for factory owners, saving 30% of their time and enhancing data driven decision-making.
- Created a single compound graph to deliver comprehensive insights into 8 key metrics of factory operation which helped in immediate operational oversight and efficiency for the factory.

### **Prediction Model of Exhaust Air Temperature**

Month Year – Month Year

• Built a neural network model using TensorFlow and Keras to Predict exhaust air temperature by optimizing mean squared error with the Adam optimizer, enabling real-time user input for accurate predictions.

#### **Real-Time Object Measurement Application**

• Developed a Python app using OpenCV and Aruco Markers to measure object dimensions in real-time, enhancing accuracy with image segmentation.

### **PUBLICATIONS**

- Title: Application for Real Time Object Measurement, Journal: International Journal of Advanced Research in Science, Communication and Technology, Year: 2022, Link: <a href="https://linksuperscripts.org/linksuperscripts">JUARSCT Paper5228</a>
- Title: A Review on Object Measurement Techniques, Journal: International Journal of Advanced Research in Science, Communication and Technology, Year:2022, Link: <a href="https://links.ncbi.nlm.ncbi
- Title: An Experimental Assessment of Deep Learning on Highway Driving, Journal: Journal of Science and technology at National Conference on Cognitive Computing., Year: 2021, Link: [Paper, Certificate]

### **LEADERSHIP**

# Sinhgad Student Council, Sponsorship Department Head

Month Year - Month Year

• Led sponsorship efforts as Sponsorship Head for the Sinhgad Student Council, securing a title sponsor and three event partners for university events and teams.