Aman Lonare

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PROFESSIONAL EXPERIENCE

Hitachi R&D, Center for Technology Innovation **Tokyo, JPN**

Research Software Engineering, Services Computing Research Dept. *Jan 2021 – Present*

- **Developed a tool in Python** for assisting in the implementation of CQRS and Event Sourcing design patterns for business users
- Designed and performed evaluation of **Core Banking application** using AxonIQ Framework with **Prometheus and Grafana**
- Reduced the overall development time by **15%** using Domain Driven Design (DDD) principles of software development process
- The tool introduce the event driven architecture in the system and integrate the **Data Science, Machine Learning** into solution
- Proposed a plan to integrate the developed tool in Hitachi's indigenous framework for **microservices application development**

Patent: "System and method to assist the modelling of CQRS and Event Sourcing based application", *In preparation*

Indian Institute of Technology Bombay **Mumbai, IND**

Project Research Associate, Technology & Development *Sept 2020 – Nov 2020*

- Developed models for detecting onions infection using **YOLOv3 and** different **sensors data** with an overall **accuracy of 95%**
- Early detection reduced the **food spoilage by 20%** and increased **farmers revenue by 10%** using **Computer Vision** techniques
- Formulated a two year curriculum for a nationwide course on "Digital Technology **(Robotics)** for Smart Agriculture" by ICAR

Home Equity Private Limited, WhatsLoan **Bangalore, IND**

Software Developer Intern *May 2016 – July 2016*

- Developed **functional prototypes** for Android application of the organization which includes Login, and Registration screens
- **Enabled data visualization** of the user characteristics by integrating the **Google Analytics** for **optimizing the user acquisition**

PROJECTS

Web-based Decision Support System (DSS) for Crop Monitoring *Aug 2019 – July 2020*

- Developed a **web portal** for farmers, government, and sugarcane mills for **real-time crop monitoring** using remote sensing
- Achieved an **accuracy of 78%** and **F1-score of 0.8** with **CNN** using open source satellite images from GEE at village level
- Reported the increase in the MSP of sugarcane **by 15%** from improved supply chain and reduced spoilage by using the portal
- Publication: Lonare, A., Maheshwari, B., Chinnasamy, P. (2020). Village Level Identification of Sugarcane Crop in India using Open Source Satellite Images. Acta Geophysica. *Submitted for publication*

SKILLS

Programming Languages: Python, Java, SQL, HTML5, CSS3

Data Science & Technologies: A/B testing, ETL, Data Science Pipeline, Keras, Tensorflow, PyCharm, Docker, Kubernetes, AWS, Git, Flask, Axon Framework, Spring Boot, Microservices, DevOps, OSS

LEADERSHIP & AWARDS

- **Publication:** Lonare, A., Srivastava, A., Chinnasamy, P. (2019). Study of LULC Change in Academic Campus by Analyzing Rainfall-Runoff Process for Sustainable Design. [Conference Paper].
- **Winner of the TECHNO-VISION 2018**, a National Level Technical Paper Presentation organized under TEQIP-III, India
- Setup **Rural Data Research & Analysis Lab** (RuDRA**)** as a Teaching Assistant (TA) in IIT Bombay with Rs. 2 million budgets

EDUCATION

Indian Institute of Technology Bombay | Post Graduation **Mumbai, IND**

Specialization: Technology and Development *July 2018 - July 2020*

- Cumulative CGPA: **9.3/10**
- Machine Learning in Remote Sensing | Advanced Statistics | Satellite Image Processing | Project Management | Probability

Indian Institute of Technology Kanpur | Graduation **Kanpur, IND**

Specialization: Mechanical Engineering *Aug 2013 - July 2017*

- Major Project: Fabrication of Non Destructive Testing Tool for Machinery Inspection