

# RUCHITA SONAWALE

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## EDUCATION:

### Master of Computer Science – New York University

Sept 2024 - May 2026

Tandon School of Engineering, Brooklyn, NY

**Coursework:** Software Engineering, Operating System, Network Security, Design & Analysis Algorithm, Machine learning.

### Bachelor of Computer Engineering

Aug 2020 – June 2024

University of Mumbai, India

CGPA: 9.36/10

## SKILLS:

**Programming Languages** - Python, C/C++, Golang, Java, JavaScript, TypeScript

**Frontend** - HTML, CSS, React.js, Vue.js, Bootstrap, Tailwind, D3.js, Three.js

**Backend** - Flask, Django, Next.js, Node.js, Express.js

**Databases** - Firebase, MongoDB, PostgreSQL, SQLite, Redis

**Cloud Platforms** - AWS (EC2), GCP (BigQuery)

**DevOps/Tools:** Git, Docker, Kubernetes, Jenkins, Postman, JIRA, Wireframing, Blender, Adobe Photoshop, Figma

## WORK EXPERIENCE:

### Software Developer – Deepface (DeepFake Detection Start-Up)

Sept 2024 – Dec 2024

- Developed and fine-tuned **Vision Transformer** and **VGG16** models, achieving **91.2%** and **88.1%** DeepFake detection accuracy on custom datasets using **OpenCV** and **FFmpeg**.
- Designed and deployed a **Django-based web application** for real-time DeepFake detection, scaling to **83 concurrent users** on **AWS EC2**.
- Led a **5-member** cross-functional team in an agile environment, utilizing **JIRA** for task management and **Figma** for UI/UX design, increasing development efficiency by **20%**.
- Validated functionality with **Selenium** and optimized performance testing using **Postman**, reducing system bottlenecks by **15%**.

### Software Intern - TechnoHacks Edutech Ltd.

Aug 2023 – Sep 2023

- Led development of full-stack solutions using **Next.js**, achieving a 30% improvement in system performance through optimized APIs and database management.
- Designed and prototyped web interfaces with **Figma** and **Adobe Photoshop**, improving user satisfaction by 15%.
- Developed and deployed scalable **RESTful APIs** and integrated caching mechanisms using **Redis**.

### Web Developer Intern - Lets Grow More Ltd.

Sept 2021 – Oct 2021

- Engineered robust single-page applications utilizing **React.js** and **MongoDB**, resulting in a 40% enhancement in application load times and increasing user engagement by 25% through an improved interface design.

## PROJECTS:

### ZEB: E-commerce Platform | Django, SQLite, AWS

- Launched a comprehensive e-commerce solution powered by **Django**, featuring a sophisticated authentication mechanism, enhancing overall user experience and operational efficiency.
- Enhanced performance using **AWS** for scalable hosting, resulting in a 50% reduction in server response time.

### Wildlife Detection system | PyTorch, Detectron 2, Python, Flask, Heroku

- Initiated an advanced object detection model using Detectron 2 based on **PyTorch**, achieving **90.2% accuracy** in identifying and segmenting 14 wildlife species from over 1,000 camera-trap images.
- Utilized **ML techniques** to improve counting and classification of individual animals, resulting in a 30% increase in the accuracy of wildlife population estimates and aiding in conservation efforts.

## LEADERSHIP EXPERIENCE:

### Technical Team, CATT - CSI DMCE

April 2021 – Aug 2023

- Mentored junior developers on scalable backend architectures, enhancing team productivity by **30%**.

## AWARDS & ACHIEVEMENTS:

- Published “[Visual Question Answering \(VOA\) with CLIP Model](#)” in *IJRASET*, Vol. 12, Issue IV, April 2024.
- Won **1st Prize at Smart India Hackathon 2022** for developing "An Iron Ore Supply Chain Monitoring System."
- Awarded Indian **Patent** "An Iron Ore Supply Chain Monitoring System and Method," published on June 2, 2023