Saketh Nandula

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Objective

Aspiring software engineer and Computer Science student with a solid foundation in Java programming and a passion for competitive problem-solving. Seeking an internship opportunity to demonstrate my technical skills in software development, data analytics, or machine learning. Committed to contributing to innovative projects while gaining practical experience and growing in a dynamic, team-oriented environment.

Skills Summary

- **Languages**: Java, JavaScript, Python, C++, R, SQL
- **Frameworks & Libraries**: MERN Stack (MongoDB, Express.js, React, Node.js), TensorFlow
- **Databases**: MongoDB, MySQL, PostgreSQL
- **Tools & Platforms**: Git, GitHub, VS Code, IntelliJ, Jupyter Notebook, Docker (Basics)
- **Concepts**: Data Structures & Algorithms (DSA), Database Management Systems (DBMS), Operating Systems, Computer Networks, Big Data Analytics, Machine Learning, Deep Learning, AWS Cloud (Basics), CI/CD (Basics), Cybersecurity (Basics), Linux Commands

Projects

- **Detecting Unauthorized Encampments in Satellite Imagery using Deep Learning**: April 2024 – August 2024
  - **Role:** Lead Developer (Academic Project with 2 members)
  - **Project Description:** Led the design and development of a deep learning system for identifying unauthorized military and refugee encampments from high-resolution satellite imagery to aid border surveillance and humanitarian monitoring.
  - **Techology & Tools:** Python, TensorFlow, ultralytics YOLOv8, Google Colab, Roboflow
  - **Impact/Results:** Achieved 95.14% accuracy and 96% precision using oriented bounding boxes; optimized model via robust image augmentation, custom training loops, and dataset balancing across 4,000+ annotated images. Validated with ground-truth data for operational deployment readiness.
- **Deep Learning-Driven Reconstruction of Maritime Targets in Noisy SAR Data**: February 2025 – April 2025
  - **Role:** Lead Developer (Academic Project with 2 members)
  - **Project Description:** Developed a custom Super-Resolution CNN to reconstruct high-quality SAR images by reducing noise and enhancing structural clarity of maritime targets.
  - **Techology & Tools:** Python, TensorFlow, Custom CNN, ultralytics YOLOv11, Google Colab, Roboflow
  - **Impact/Results:** Achieved PSNR of 27.854 dB, SSIM of 0.616, and GSCR of 15.92 dB. Improved YOLOv11-based ship detection performance by 21.5% mAP@0.5 post-reconstruction. Used a dataset of 11,590 SAR images across C-, L-, and X-band frequencies with 70:20:10 train-validation-test split.
- **Airbnb Clone – Vacation Rental Web Platform**: May 2023 – October 2023
  - **Role:** Solo Developer
  - **Project Description:** Replicated core Airbnb features including listings, booking, and management, with real-time UI updates and responsive design.
  - **Tech Used:** MERN Stack (MongoDB, Express.js, React.js, Node.js)
  - **Impact/Results:** Enabled browsing of 100+ properties, supported user bookings, and stored 5K+ records; improved user engagement by 40% with mobile-first UI and fast backend responses.

Hackathons & Competitions

- Achieved 2nd place (INR 20,000 cash prize) in the SaaS theme at **TechXcellerate 2025 (BITS Pilani Hyderabad Campus)** as **Team Lead** for proposing a **Subscription Management SaaS platform** to help individuals, freelancers, and businesses track renewal dates, estimate monthly/annual expenses, and eliminate redundant subscriptions via a centralized dashboard – March, 2025.
- Competed in the **Amazon ML Challenge on Unstop**, developing an **Entity feature extraction model** using supervised learning on 100K+ household product images, achieving 93.6% accuracy in predicting key attributes like weight, volume, and dimensions – August 2024.
- Competed in **Cricket Code Champions Hack on HackerEarth**, developing a **Random Forest model to predict player performance** in World Cup matches using 50K+ data points on stats, form, pitch, and conditions, achieving 91.2% prediction accuracy – December 2023.

Certifications & Publications

All certifications available at: https://github.com/saketh0104/Certifications/blob/main/README.md
Publications:

- *Detecting Suspicious Military Tents from Optical Images using Deep Learning Model*, published in **IEEE Xplore**, DOI: 10.1109/10774858.

Competitive Programming

- **LeetCode:** Solved over 370 problems (including 210+ in Java), earned multiple badges (100+ days in 2024, 50+ days in 2025, and a streak in February 2025), and participated in over 10 weekly contests.
- **CodeChef:** Solved over 200 problems, scored 100% in the Java Online Test, and participated in more than 4 contests.
- **HackerRank:** Earned a 5-star gold badge in Python and participated in over 3 college coding contests.

Academic Achievements

- Earned the Java Explorer Badge for completing 15 modules in the Oracle Java Foundations course on Oracle MyLearn.
- Completed 3 NPTEL course examinations, earning certifications by securing the required scores, including a Gold certification in R Software with a 90% score.
- Achieved the highest SGPA in the branch for Semester 1-1 and Semester 2-2.

Positions of Responsibility

- **Member, Analytics Society of India – Student Chapter, VRSEC:** Played a key role in organizing 5 technical workshops, 1 hackathon, and 2 guest lectures; mentored 200+ peers in coding and algorithms.
- **Microsoft Learn Student Ambassador, Microsoft Learn Student Club, VRSEC:** Participated in 3 workshops focused on Machine Learning, Web Development, and Data Analytics & Visualization.

Education

VR Siddhartha Engineering College, Vijayawada, India — 2022 – 2026
B.Tech in CSE (Artificial Intelligence & Data Science) — CGPA: 9.35

Narayana Junior College, Vijayawada, India — 2020 – 2022
Senior Secondary (Class XII), AP State Board — Percentage: 96.4%

Dr. KKR's Gowtham Concept School, Vijayawada, India — 2019 – 2020
Secondary School (Class X), AP State Board — Percentage: 96.4%

Languages

English, Hindi, Telugu