

YUVRAJ SINGH

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EDUCATION

Netaji Subhas University of Technology
B.Tech. in Computer Science with Artificial Intelligence

May 2022 - May 2026
(New Delhi, India)

DAV Public School
Class XII CBSE

May 2019 - May 2021
(New Delhi, India)

DAV Public School
Class X CBSE

May 2019
(Haryana, India)

EXPERIENCE

Netaji Subhas University Of Technology, New Delhi | AI-INTERN

June 2023 - July 2023

- Internship in Artificial Intelligence and Machine Learning.
- Assisted in the Research work of Detection of pancreatic adenocarcinoma and implementation of CNN, RNN, YOLO techniques.
- Evaluated and Annotated 150+ CT scans of the affected abdominal region under the supervision of an oncologist and a radiologist leading to reduction in diagnostic errors and faster treatment planning.

Google Developer Student Clubs | Operations Lead

November 2023 – Present

- Leading all GDSC-NSUT sub-departments. Directed a team of 45+ members to organize tech events, achieving a 200% increase in engagement on GitHub and Discord through strategic community management.
- Organized the GDSC-NSUT hackathon alongside workshops on NVIDIA Deep Learning, machine learning, and diffusion model bootcamps, successfully hosted and facilitated over 250+ attendees.
- Partnered with industry professionals to facilitate panel discussions and networking events, effectively bridging the gap between students and the tech industry.

Hackathon | Team Position- Finalist out of 90+ teams

7th - 8th October , 2022

- Hack BVICAM organized by IEEE. Reached the top 7 teams and became a finalist in a 24-hour hackathon.
- Developed an application - Foeto for emergency services and assistance to women who are pregnant or in labor.
- Applied UI/UX design principles using Figma in a project to create a user-friendly application, enhancing navigation and interface, which led to an estimated 30% increase in user engagement.

PROJECTS

Ongoing Research Work on the Anomaly detection in IOT using ML.

January 2024 - Present

- Safeguarding IoT systems by identifying deviations from normal behavior, thus potentially thwarting attacks like
- Device spoofing, Man-in-the-middle (MitM), Distributed denial of service (DDoS) attacks.
- The entire dataset was synthetically generated using Bevywise IoT simulation software, orchestrated through an MQTT broker, and extensively captured via Wireshark for comprehensive network interception and analysis.

Research Work on the Prognosis of adenocarcinoma using Deep learning

June 2023 - July 2023

- Team project for the internship, earned Honorable Mention -Developed an online web-service for Doctors and patients assistance for detecting of abnormality in abdominal region.
- Assistance by uploading CT scan of Abdominal region to check for any presence/detection of tumor or adenocarcinoma using neural network architecture, reducing the time required for diagnosing and the associated workload by up to 70% .
- Learned deep learning (CNNs, RNNs optionally, object detection like YOLO/SSD)

Modified Sand Cat Swarm Optimization Algorithm

Manuscript in Preparation

- Introduced adaptive step size control, enhanced selection with tournament selection, a hunter-follower mechanism, and a targeted random walk mechanism to improve the algorithm's exploration strategy.
- Improved the performance of the existing algorithm on 46 out of the 59 Benchmark functions from the CEC benchmark suites.

SKILLS

Languages: C/C++, Python, JavaScript, TypeScript, HTML5/CSS, SQL

Tools and Libraries: Git/GitHub, Webpack, VS Code, PyCharm/IDEA, Atom, Pandas, NumPy, Matplotlib, TensorFlow, OpenCV, PyTorch, Power BI, Tableau, Adobe XD.

OSINT/Forensics Tools: Wireshark, Autopsy, Maltego, theHarvester, OSRFramework.