Riya Arora

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Education

Indian Institute of Technology, Mandi   Himachal Pradesh, India
B.Tech., Computer Science and Engineering, CGPA (Present): 9.47/10.00   *Dec 2021 - June 2025*
- Relevant Courses: Data Structures and Algorithms, Information and Database Systems, Computer Networks, Machine Learning, Deep Learning and Applications, Generative AI, Applied Database Practicum, System Practicum, Programming and Data Science, Statistics, Probability and Random Processes, Paradigms of Programming, Computer Organization.

RWTH Aachen University, Aachen   North Rhine-Westphalia, Germany
Exchange Semester, Department of Computer Science   *Oct 2023 - Mar 2024*
- Courses: Automatic Speech Recognition, Machine Learning, Introduction to Artificial Intelligence, Virtual Reality I.
- Received the RWTH Aachen University Exchange Scholarship under DAAD Program STIBET-I for excellent academic record.

Experience

Software Engineering Intern, Google India   *Hyderabad, India*
GPay Online Merchant Team | Tech Stack: Java, TypeScript, Protocol Buffers   May 2024 - August 2024
- Worked on a full-stack solution to display chargebacks related to GPay acquired merchants on GPay's business console. This makes sure that GPay remains compliant with the RBI guidelines on chargebacks.
- Wrote protocol-buffer definitions, implemented Remote Procedure Calls in service and storage layers of backend, and created a new UI component to render the chargebacks data on the console based on user-applied filters.

Skills

- **Programming Languages**: C++, Python, Java, TypeScript (Some Experience)
- **Frameworks & Tools**:   Git, MySQL, MongoDB, HTML, CSS, Express.js
- **Data Science**:   Machine Learning, Deep Learning (CNNs, RNNs & LSTMs, Transformers, Generative AI)

Projects

HistologyNet - Self-Supervised Segmentation Solver   github://DarkOxygen123/DL_Hackathon-HISTOLOGY-NET
Tech Stack: Python, Pytorch, Ternausnet, NumPy, Streamlit   *April 2024*
- Developed a U-Net based learning model for self-supervised binary segmentation of histology images (Dice Score: 0.8388).
- Created a web-application to deploy the model, with features to edit (crop/rotate) input, visualize and download the results.

(First Prize in Yamaha AI Innovation Hackathon 3.0 at IIT Mandi | Team Project | Main Role: Creation of web-app and deployment of model)

LookWithin - A WebApp for Mental WellBeing   github://arora-riya/LookWithin
Tech Stack: HTML, CSS, JavaScript, MongoDB, Node.js, Express.js, EJS, Auth0, Socket.io   *March 2023*
- Developed a web-application with resources on mental-health, and a feature for users to sign-up and chat in real-time.
- Connected a database to allow psychiatrists to offer consultations (after authenticating their ID), which the users could access.

Agrigon - Weed-Detection and Removal Robot   github://arora-riya/weed-detection
Tech Stack: TensorFlow, OpenCV, Raspberry Pi   *March 2023 - May 2023*
- Fine-tuned SSD Object Detection Model, for real-time detection of weeds through the camera on the robot's robotic arm.
- The robot's mobile base and robotic arm were programmed to move to the coordinates of detected weed using Raspberry Pi.

(Team Project under Design Practicum Course | Responsibility: Object-Detection using SSD, including collecting and annotating training images)

DDoS Attack Detection   github://arora-riya/DDoSAttackDetection
Tech Stack: Python, Scikit-learn, Pandas, Numpy, Matplotlib, Seaborn   *November 2022*
- Trained Random Forest, KNN, Logistic Regression and SVM models to detect and differentiate Distributed Denial of Services Attacks from legitimate user requests, based on features like byte-count, TX/RX kbps, packet parameters etc.

(Team Project under Data Science-III Course| Main Role: Worked on Random Forest Classification Model with accuracy of 98.54%)

Achievements

- Codeforces Rating: Max - 1663, Expert
- Received the AnitaB.org Advancing Inclusion Scholarship to attend the Grace Hopper Celebration 2024 virtually.   *April 2024*
- **TalentSprint Women Engineers Program 2022 Scholar**   *April 2022 - March 2024*
  Among top 250 students (from 28,000+ applicants) selected with 100% scholarship for the WE Program, supported by Google.
- Received IIT Mandi Foundation Day Award in recognition of academic excellence during AY 2022-23.   *February 2024*
- Received CBSE Merit Certificate for being among the top 0.1% students in Maths, Social Science and Hindi in AISSE 2019.

Positions of Responsibility & Extra-Curriculars

- **Athletics Game Head (Women):** Assisted with team selection and championships.   *November 2022 - June 2023*
- **Guidance and Counselling Services Student Volunteer:** Mentored first-year students.   *September 2022 - Present*
- Won Silver Medal in 4 X 100m Relay event in Ranneeti'22 - Inter-College Sports Meet of IIT Mandi.   *November 2022*
- Won three medals in Inter-Hostel Sports Championship: Silver in 100m & 400m events and Bronze in Long Jump.   *May 2022*
- Volunteered for the Art of Living Organization in conducting self-development workshops for youth.   *2019 - Present*