Yash Arya

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Education

Motilal Nehru National Institute of Technology Allahabad

Master of Computer Applications, CPI: 8.37

Shyam Lal College, University of Delhi

Bachelor of Science Honours (Mathematics), CPI: 8.46

Rajkiya Pratibha Vikas Vidyalaya Surajmal Vihar

Class XII (CBSE), Percentage: 93.6

August 2023 - Present Prayagraj, Uttar Pradesh

October 2020 - May 2023

Delhi, India

April 2019 – March 2020

Delhi, India

Projects

HACKALYZE \(\mathbf{O}\) | Node.js, Express.js, MongoDB, React.js, Google Gemini, Tesseract OCR

March - April 2025

- Built an AI-powered hackathon judging platform that reduced submission evaluation time by over 95%.
- Configured OCR and Gemini to analyze 4 diverse pitch formats audio, video, image, and text file to generate scores.
- Designed a platform with 3 interfaces (student, teacher, admin) and developed a rubric-based scoring system with custom parameters and weights for AI and manual evaluation.
- Documented APIs using Swagger, enabling seamless integration with other third party hackathon platforms.

FACE ID VERIFICATION APP ? Python, Kivy, TensorFlow, OpenCV, Scikit Learn October – November 2024

- Developed a Python application to verify face IDs by training Siamese Neural Network (SNN) achieving 90% accuracy.
- Implemented shared-weight CNN with L1 distance similarity metric for pairwise image comparison.
- Trained the model using binary cross-entropy loss and Adam optimizer for optimal accuracy and efficiency.

Research Experience

Researcher & Co-Author | Dr. Amit Biswas, CSED, MNNIT Allahabad

May - June 2025

- Co-authored and submitted a research paper proposing a blockchain-based IPO allocation framework with two-layer architecture addressing transparency, fairness, and auditability issues in traditional systems.
- Proposed a two-layer consensus mechanism, registrar rating for cluster selection, and a Proof of Honesty (PoH) consensus algorithm to penalize dishonest registrar behavior and reward honest nodes during block proposals.
- Designed smart contract and implemented through solidity on Etherium network with SEBI and registrar access, using 4-party cryptographic seeds to trigger lottery during oversubscription of IPO.
- Simulated performance on 30-node networks across 500 IPO rounds; results showed 99% Jain's Fairness Index and strong resistance to dishonest behavior compared to PoW, PoS, and PoK.

Relevant Coursework

- Data Structures and Algorithms
- Operating System

- Database Management System
- Computer Networks

- Object Oriented Programming System
- Software Engineering

Technical Skills

Languages: C, C++, Python, Java, JavaScript, Solidity

Development: Node.js, Express.js, Tailwind CSS, MongoDB, SQL, HTML, React.js, LaTeX, Git, Neural Networks

Other Skills: Competitive Programming, Postman, Web Design, Full-Stack Web Development

Soft Skills: Teamwork, Leadership, Management, Communication

Achievements and Activities

- Finalist in Morgan Stanley's Code to Give Hackathon: Built Hackalyze, ranked among top 8 teams.
- Reached Guardian level on LeetCode with a peak rating of 2160, ranking in the top 1.2% globally.
- Achieved Expert rank on Codeforces with the highest rating of 1620, placing in the top 20% globally.
- All India Rank 32 in NIT MCA Common Entrance Test (NIMCET) 2023.
- All India Under 40 in International Chemistry Olympiad of Metropolises 2019.

Coding Profiles

LeetCode: Yash_Arya2003 Codeforces: Yash_Arya GeeksforGeeks: yasharya82003