



Aatmaj Mhatre

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I'm a Computer Science enthusiast with a keen interest in Maths. I like to build innovative solutions that help the community. One day, I aspire to develop a product which will help my country.

B. Tech, Computer Engineering with Minor in AR VR Somaiya Vidyavihar University 2021-25

CGPA: 9.79

Paper Publications

1. **Graph Theory & Network Analysis:** Classification of Indian Classical Music Ragas using Graph Theory, IEEE conference
2. **IoT:** Development of Active Toy for Increasing Eye-Hand Coordination and Reaction Time Among Toddlers, IEEE conference
3. **Software Engineering & Web Application Development:** Progressive Web Applications, a New Way for Faster Testing of Mobile Application Products, IEEE conference
4. **Bias in AI:** Detecting the presence of social bias in GPT-3.5 using association tests, IEEE conference

Research Projects

1. **Video Motion Amplification:** Algorithm for predictive maintenance & border security. Software SDK in multiple languages + hardware system running on Raspberry Pi was developed- Video Link
2. **Visual Vibration Analysis:** Vision-based vibration tracking for predictive maintenance. (Paper presented) Technologies: OpenCV, Grafana, PostgreSQL, YOLO, gRPC
3. **Real-time De-hazing of Densely Hazed Video Feeds:** Removing haze & fog from videos for firefighters & border security
4. **Graph Theory Analysis of Ragas:** Analysis of similarity of Ragas using unsupervised ML techniques. Copyright applied & paper written

Cybersec Projects

- **TrojanKraft: Automated Windows Trojan Maker:** (Registered Copyright on the project)
- **APK-Scout Android mobile forensic software:** Developed for Thane Cybercell (Copyright Pending)
- **Android Spyware:** Developed as a side (hobby) project
- **Hacking & PenTesting** performed for Indrones Pvt Ltd, KJSCE CCTV systems & University database
- **Cybercrime & Malware Analysis** performed with Thane Cybercell for 2 cases

Development Projects



ANN4j

ANN4j is an Open Source Java package providing Object-Oriented-Neural-Networks for research <https://github.com/Aatmaj-Zephyr/ANN4j>.



Somaiya Digital IDCard Portal is a PWA app for digital ID cards that can be scanned at entrance. <https://github.com/Aatmaj-Zephyr/WPL-MP>

Research Internship

Computer Vision based High Altitude GPS denied Navigation for Unmanned Aerial Vehicals: 4 month internship at Indrones Solutions Pvt Ltd working on drones for military surveillance (hardware + software)

Languages & Technologies



Github Stats

- **Total Contributions:** 6.5k+
- **Total Stars:** 400+
- **Followers:** 125+
- **Best Streak:** 651 Days

Hobbies

- Tabla
- Violin
- Chess
- Hacking

100

100+ Blogs Written
1k+ Subscribers



5 Tech

Competitions Won



4 Papers at IEEE
conferences