

# Sukhendu Tripura

Agartala, Tripura, India  
skttripura4747@gmail.com — +91-9863443162

## Profile Summary

---

I am an M.Tech student specializing in Data Engineering with a foundation in Computer Science and Engineering. My current thesis work focuses on enhancing biometric security by developing robust Convolutional Neural Network (CNN) architectures, while ensuring rigorous validation of data integrity and algorithmic performance.

## Education

---

<b>National Institute of Electronics and Information Technology (NIELIT), Agartala</b> M.Tech in Data Engineering (Final semester / Thesis phase)	2024 – 2026 CGPA: 8.72/10
<b>National Institute of Technology (NIT), Agartala</b> B.Tech in Computer Science and Engineering	2020 – 2024 CGPA: 8.01/10
<b>Don Bosco School, Agartala</b> Class XII (CBSE)	2020 Percentage: 69.8%
<b>St. Xavier's Higher Secondary School, Bishramganj</b> Class X (CBSE)	2018 Percentage: 68.6%

## Academic Projects & Research

---

### M.Tech Thesis: Liveness Detection in Iris using CNN Models (Ongoing)

- Developing CNN architectures to identify biometric spoofing, results currently being prepared for publication.
- Utilizing research datasets such as CASIA-Iris-Thousand and CASIA-Iris-Syn for robust validation.
- Focusing on analytical validation to identify and mitigate biases in biometric authentication systems.

### Independent Study: Analyzing Hashing Algorithm Efficiency (Ongoing)

- Investigating optimal bounds for open addressing without reordering, inspired by research from FOCS 2024.
- Evaluating hashing efficiency for secure, high-speed data retrieval in real-time systems.

### Malicious URL Detection Using Machine Learning (8<sup>th</sup> Sem, B.Tech)

- Developed a multi-classifier system (Random Forest, LightGBM, XGBoost) to categorize malicious URLs.
- Implemented feature extraction techniques to achieve high detection and classification accuracy.

### Z-Kart: Online E-commerce Website (7<sup>th</sup> Sem, B.Tech)

- Built a full-stack platform using Next.js, React.js, and MongoDB with secure user authentication features.

## Technical Skills

---

- Languages:** Python, C, C++, SQL, JavaScript
- AI/ML:** CNNs, Deep Learning, Decision Trees, Random Forest, Hashing Algorithms, Data Structure Optimization
- Tools & IDEs:** VS Code, PyCharm, Jupyter, Spyder, Android Studio, MS Office (Word, Excel, PowerPoint)
- Frameworks & Design:** Next.js, React.js, HTML5, CSS3, MongoDB, Canva, Draw.io, Lucidchart, Cisco Packet Tracer, LaTeX

## Certifications & Achievements

---

- Skill Competency in AI (AI Assistant)** — July 2025 – Feb 2026: Awarded S Grade by NIELIT & NCVET.
- AICTE Internship** — Aug 2025 – Feb 2026: Work-Based Learning Internship in AI/ML at NIELIT Agartala.
- Yuva Sangam Exchange Program** — March 2023: Represented NIT Agartala at IIT Madras.
- Chess Competitions:** Winner (Rendezvous 4.0) at NIELIT Agartala, Medalist in 9th Divine Chess Club Open Tournament (Lichess). Winner (Aayam 8.0) and Runner-up (Aayam 9.0) at NIT Agartala.
- Technical Certifications:** Web Designing (NIELIT - S Grade), Cyber Security (Edustation), SQL (SoloLearn).

## Hobbies & Languages

---

- Hobbies:** Playing chess, Gym training, Drawing, Listening to music, Volleyball, and Cricket.
- Languages:** Kokborok (Native), English (Fluent), Hindi (Fluent), Bengali (Fluent).