

AVIJIT ROY

CONTACT

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- avijit-is-a-dev.vercel.app



PROFILE

MCA student and Full-Stack Developer with hands-on experience building responsive web applications using React.js, JavaScript (ES6+), Node.js, Express.js, and MongoDB. Skilled in component-based architecture, REST API integration, responsive web development, real-time communication systems, and modern frontend engineering practices. Experienced with Git, Docker, cloud deployment platforms, and scalable application design. Passionate about creating intuitive digital experiences and high-performance web applications.

LANGUAGES

- Bengali (native)
- English (fluent)
- Hindi (fluent)

TECHNICAL SKILLS

- Frontend:** HTML5, CSS3, JavaScript (ES6+), React.js, Bootstrap, Responsive Web Design, AJAX, Component-Based Architecture
- Backend:** Node.js, Express.js, RESTful APIs
- Databases:** MongoDB, SQL Server
- Tools & Platforms:** Git, GitHub, Docker, Postman, Vercel, Render
- Programming Languages:** JavaScript, Python, C, C++
- AI/ML:** TensorFlow, PyTorch, OpenAI API, AI Agents, Chat Agents, Voice Agents
- Core Concepts:** Object-Oriented Programming, System Design, Database Management, API Development, Performance Optimization, Authentication & Authorization

PROJECTS

Picsta | Full-Stack Social Media Platform 2026

<https://github.com/Avijit-roy/Picsta>

- Built an Instagram-inspired social media application using React.js, Node.js, Express.js, MongoDB, and Socket.IO.
- Developed responsive UI components, real-time messaging, stories, reels, and OAuth authentication.
- Designed and integrated RESTful APIs for scalable client-server communication.
- Implemented real-time updates and optimized application performance across devices.

Chat Box | Real-Time Messaging Application 2023

<https://github.com/Avijit-roy/Chat-box>

- Developed a full-stack real-time chat application using React.js, Node.js, Express.js, MongoDB, and Socket.IO.
- Implemented user authentication, friend discovery, and instant messaging functionality.
- Applied component-based architecture and asynchronous data handling for enhanced user experience.
- Designed responsive interfaces ensuring cross-device compatibility.

<https://github.com/Avijit-roy/CropGuard-AI>

- Developed an AI-powered crop disease detection system using MobileNetV2 feature extraction.
- Generated 1,280-dimensional feature vectors and applied feature selection techniques including CFS and InfoGain.
- Achieved 92% classification accuracy using optimized machine learning models.
- Improved model efficiency and scalability through dimensionality reduction techniques.

MemoryMap | Intelligent Video Analysis System2025

<https://github.com/Avijit-roy/MemoryMap>

- Designed an AI-powered surveillance video analysis platform.
- Implemented motion detection, object recognition, importance scoring, and automated event summarization.
- Built scalable processing workflows for extracting meaningful insights from large video datasets.

EXPERIENCE

Machine Learning Internship

Feuchr - School of Excellence Pvt. Ltd. | Jul 2022 - Aug 2022

- Developed and deployed predictive machine learning models.
- Worked with data preprocessing, model evaluation, and deployment workflows.
- Contributed to data-driven application development practices.

Security Testing of a Vulnerable API

Employability.life & Federation University | May 2025 - Sept 2025

- Performed security assessment of REST APIs and identified common web vulnerabilities.
- Evaluated authentication, authorization, and API security weaknesses.
- Analyzed mitigation techniques and secure development practices.

EDUCATION

Master of Computer Applications (MCA) | 2024 - 2026

Sister Nivedita University (SNU)
DG Block(Newtown), Action Area I
CGPA/Percentage: 79.80%

Bachelor of Computer Applications (BCA) | 2020 - 2023

Global College of Science and Technology (GCST)
NH-34, Palpara More, Bhatjangla, Krishnanagar
CGPA/Percentage: 77.40%

Higher Secondary Education | 2018 - 2020

Board - WBCHSE
R.C.B. Saraswat Mandir
C976+JGR, Malanchapara, Nabadwip
CGPA/Percentage: 74%

Secondary Education | 2017 - 2018

Board - WBBSE
R.C.B. Saraswat Mandir
C976+JGR, Malanchapara, Nabadwip
CGPA/Percentage: 65.5%

ACHIEVEMENTS

- Built and deployed multiple full-stack web applications using the MERN stack.
- Developed real-time communication systems using Socket.IO.
- Achieved 92% accuracy in an AI-based disease detection system.
- Designed and integrated scalable RESTful APIs for production-ready applications.

Declaration:

I hereby declare that the information provided above is true and correct to the best of my knowledge.