

Nilashis Saha

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Objective

Full-stack software engineer dedicated to building scalable systems and intelligent solutions. Experienced in leveraging secure authentication mechanisms, database optimization, and emerging technologies. Committed to delivering robust, user-centric applications through clean code, performance optimization, and advanced system design principles while advancing innovative technology practices.

Education

Bachelor of Technology in Computer Science and Engineering <i>Adamas University, Kolkata, West Bengal</i>	<i>2022 – Present (Expected 2026)</i> CGPA: 9.17 / 10
Senior Secondary Education <i>Kalyani Public School, Barasat, West Bengal</i>	<i>2019 – 2021</i> Percentage: 82.60%
Secondary Education <i>Douglas Memorial Higher Secondary School, Barrackpore, West Bengal</i>	<i>2013 – 2019</i> Percentage: 90%

Technical Skills

- **Frontend:** HTML5, CSS3, JavaScript (ES6+), React, React Native, Tailwind CSS
- **Backend:** Laravel, Flask, Node.js, Express.js, REST APIs
- **Databases:** MySQL, MongoDB
- **Languages:** Python, PHP, Java, JavaScript, SQL
- **DevOps & Tools:** Docker, GitHub Actions, Google Cloud Console, Git, GitHub
- **Additional:** Authentication (JWT & Google OAuth), Image Processing, Web Scrapping (Selenium)

Experience

Software Development Intern – Department of CSE, Adamas University	<i>May 2025 – Jan 2026</i>
<ul style="list-style-type: none">• Built a PhD Progress Tracker System to manage doctoral students' milestones, automating progress notifications.• Developed PBAS (Performance-Based Appraisal System) to streamline faculty evaluation, reducing manual work.• Implemented role-based access control and interactive dashboards, improving usability for 25+ faculty members.	
Cybersecurity Research Intern – University College Cork (UCC), Ireland	<i>Jun 2025 – Sep 2025</i>
<ul style="list-style-type: none">• Developed a Flask web application for medical image decoding and secure data handling, processing multiple test images per day.• Implemented AES & RSA encryption/decryption algorithms to protect sensitive patient data.• Simulated third-party access scenarios to identify security vulnerabilities, improving data protection coverage.	
Software Development Intern – KATSI Canada, Toronto	<i>Aug 2024 – Apr 2025</i>
<ul style="list-style-type: none">• Co-developed an OFAC List Checking Web App using PHP & MySQL, improving compliance checking speed.• Created system diagrams using Visual Paradigm and Figma for accurate project planning as per system flow.• Conducted manual test cases to ensure zero critical bugs and deployed the website on Hostinger.	
Junior Research Collaborator – The Future Network, Kolkata	<i>Sep 2023 – Apr 2024</i>
<ul style="list-style-type: none">• Built backend scripts in PHP to store real-time eye-tracking data into MySQL for research analysis.• Developed frontend dashboard using HTML, enabling visualization of tracking data for experiments.	

Projects

Delivery Hub – Peer-to-Peer Logistics Platform

- Built a comprehensive logistics backend in Node.js + Express + MySQL, featuring role-based dashboards for Senders and Delivery Partners using React Native.
- Engineered a robust Automated Testing Suite using Jest & Supertest, achieving high test coverage for authentication and order management flows.
- Designed 20+ manual test cases and API validation scripts (Postman), simulating real-world edge cases like race conditions and network failures.

Student Portal – Full-Stack Web Application

- Developed a student information system in PHP + Tailwind CSS + MySQL, used by 1,500+ students.
- Created Admin Dashboard for 25+ faculty members to track student attendance, progress, and academic data.
- Implemented secure authentication, real-time updates, and responsive design across desktop & mobile.

University Research Portal – PhD Progress Tracker

- Developed a comprehensive system for PhD scholars to track research progress, upload publications, and manage IP records using Laravel + MySQL.
- Created an administration portal for faculty verification and approval workflows with secure access control.

Scribe – Real-time Chat Application

- Built a real-time messaging platform using Python (Flask) + Socket.io, enabling instant communication across multiple chat rooms.
- Implemented persistent message storage with MongoDB, ensuring chat history is preserved across sessions.
- Designed a responsive, user-friendly interface with Tailwind CSS that supports up to 5 concurrent users per room.

Reddit Clone – Social Media Platform

- Built a full-stack Reddit clone with Node.js + Express + MongoDB featuring post creation, image uploads, and up-vote/downvote functionality.
- Implemented threaded commenting system with nested replies and real-time interaction tracking.

Certifications

- Introduction to Algorithms and Analysis – NPTEL (Nov 2025)
- Problem Solving Through Programming in C – NPTEL (May 2024)
- The Joy of Computing Using Python – NPTEL (Nov 2024)
- Digital Transformation with Google Cloud – Google (Nov 2023)
- Infrastructure and Application Modernization with Google Cloud – Google (Nov 2023)
- Innovating with Data and Google Cloud – Google (Nov 2023)
- Understanding Google Cloud Security and Operations – Google (Nov 2023)
- Programming with Python – upGrad (Jul 2023)
- Artificial Intelligence in Real World – upGrad (May 2023)
- Introduction to Programming Using Python – Programming Hub (Jul 2023)