Niloy Saha

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EDUCATION

Dickinson College   *Jun 2027*
B.S. in Computer Science and Data Analytics   *Carlisle, PA*

Relevant Coursework: Data Structures, Open Source Software Development, Analysis of Algorithms, Database Systems, Computing Abstractions, Introduction to Data Science, Object-Oriented Programming, Operating Systems, Linear Algebra, Discrete Mathematics.

SKILLS

Languages: Python, Java, JavaScript, TypeScript, SQL, HTML/CSS, R, C
Tools: Git, Docker, Command Line Tools, Selenium, Cypress, JUnit, PyTest, Eclipse, PyCharm
Technologies: React, Next.js, Vue.js, Node.js, Express.js, Tailwind CSS, REST APIs, AWS Lambda, MongoDB

EXPERIENCE

● **FarmData2**   *May 2025 – Jul. 2025*
Software Engineer Intern   *Carlisle, PA*

○ Developed and refactored 10+ core UI components using Vue.js, resolving critical bugs to improve front-end stability.
○ Authored and maintained 15+ Cypress test files for end-to-end and component testing, achieving 75%+ coverage.
○ Streamlined developer workflows by implementing Git pre-commit hooks to enforce linting rules.

● **Development Initiative for Social Awareness (DISA)**   *Jul. 2024 – Aug. 2024*
Software Development Intern   *Dhaka, Bangladesh*

○ Engineered a microfinance management system using JavaScript and Bootstrap, implementing system documentation for 500+ users.
○ Integrated RESTful APIs and optimized MySQL queries, achieving 25% faster data retrieval.

● **84 Lumber**   *Nov. 2023 – Mar. 2024*
Student Researcher   *Carlisle, PA*

○ Developed a machine learning pipeline to modernize legacy codebase, creating detailed technical documentation and process improvement recommendations.
○ Successfully translated 30% of legacy C Basic codebase to Java and Python, enhancing system maintainability.

PROJECTS

● **Retal - Peer-to-Peer Rental Marketplace**   *Jun. 2025 – Present*
Next.js, React, TypeScript, tRPC, PostgreSQL, Prisma, Supabase, Auth.js, Tailwind CSS   *Link*

○ Developing a full-stack, type-safe rental marketplace with secure authentication and a scalable PostgreSQL schema.
○ Built type-safe APIs using tRPC and deployed the platform on Vercel for real-world testing.

● **WatchNext - Full-Stack Media Tracker**   *Aug. 2025 – Present*
React, Node.js, Express.js, MongoDB, Tailwind CSS, JWT   *Link*

○ Designing and building a decoupled, full-stack web application to track watched movies and TV shows.
○ Architecting a secure REST API with Node.js and Express for user authentication, data management, and integration with the TMDB API.

● **StudyBuddy - AI-Powered Learning Platform**   *Dec. 2023 – Jan 2025*
Next.js, TypeScript, Tailwind CSS, OpenAI and Gemini APIs, Clerk   *Link*

○ Co-developed an AI-powered platform that transforms lecture content into structured study materials for 50+ users.
○ Engineered a responsive UI with Next.js, implementing real-time AI transcription with 98% accuracy.

● **Automated Sentiment Analysis**   *Nov. 2023 – Dec. 2023*
Python, Data Processing

○ Engineered a machine learning-based sentiment analysis system with detailed technical documentation.
○ Achieved 82% accuracy on 5000+ reviews through systematic requirement analysis and iterative improvement.