

Amaan Abubakar

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Education

Stony Brook University, *B.S. in Computer Science and AMS* Aug 2023 – Present

- **Coursework:** Introduction to Object-Oriented Programming, Foundations of Computer Science, Data Structures, Applied Calculus II & III, Applied Linear Algebra, Software Development, Database Design and Modeling

Experience

Software Engineer Intern, Valearnis Jan 2026 – Present

- Architected and deployed an AI-powered content generation pipeline using Django, PostgreSQL, and large language model integrations to automate lesson asset creation, reducing manual content production time by 60%.
- Diagnosed and resolved cross-device mobile styling issues by auditing responsive breakpoints and restructuring layout components, reducing user-reported interface bugs by 70% and improving mobile engagement metrics.

Founder & Developer, Curio Learning May 2025 – Present

- Engineered an AI-powered platform enabling children to watch YouTube videos and receive dynamically generated educational quizzes, boosting engagement in test groups by 40%.
- Designed branding and product roadmap, attracting 50+ early adopters and positioning Curio as a scalable edtech solution for interactive learning.

Software Engineer Intern, AnalyticsGuard Jun 2024 – Sep 2024

- Engineered a sophisticated VPS traffic monitoring system, leveraging AWS Lambda, EC2, and S3 for automation and secure data handling, which resulted in a 30% improvement in efficiency and a 20% decrease in latency.
- Designed an intuitive frontend UI using React, improving client access to AnalyticsGuard AI's core features and increasing user engagement by 15%.

Projects

Learnium Jan 2026

- Built a full-stack study planner that lets students upload syllabi and automatically generates personalized study schedules; implemented React + Vite front end and a Flask + MongoDB back end with JSON Web Token authentication for protected course and materials workflows.
- Tools Used: React, Vite, TypeScript, Python, Flask, MongoDB, OpenAI API

MovieSearch Feb 2025

- Built a responsive React application that searches and displays movie titles, posters, and release years by integrating the Open Movie Database application programming interface via Axios; delivered a clean dark-theme interface with smooth animations.
- Tools Used: React, JavaScript, CSS, Axios, OMDb API

Roomsy Nov 2024

- Built a complete Airbnb clone with secure peer-to-peer payment functionality using the Stripe API. Integrated features like user authentication, listing management, and booking options, providing a fully functional simulation of a real-world marketplace.
- Tools Used: TypeScript, React, Stripe API, Node.js, Express, AWS

Personal Portfolio Website Jun 2024

- Developed a visually engaging portfolio website to showcase projects and skills, featuring smooth animations and a responsive design for a dynamic, professional online presence.
- Tools Used: HTML, CSS, React, JavaScript, GitHub Pages

Certifications

AWS Certified Cloud Practitioner: Demonstrated foundational knowledge of AWS services and cloud infrastructure, including essential concepts in storage, networking, and security. Skilled in leveraging AWS cloud solutions to optimize system performance and scalability, providing a strong base for future specialization in cloud architecture and engineering.

J.P. Morgan Software Engineering: Completed a comprehensive virtual experience program with J.P. Morgan Chase, focusing on the fundamentals of software engineering within a real-world financial context. Leveraged J.P. Morgan's open-source Perspective library to create a dynamic, real-time data visualization.

Skills

Languages: Python, HTML/CSS, SQL, TypeScript, Git, LaTeX, C++, C, Java, JavaScript

Software: .NET, XCode, Next.js, React/Redux, Visual Studio Code, Amazon AWS, Perspective