

Satvik Mathur

Troy, NY | satvikmathur.me | [linkedin.com/in/satvik-mathur](https://www.linkedin.com/in/satvik-mathur)

WORK EXPERIENCE

Rensselaer Polytechnic Institute

Troy, NY

Undergraduate Research

July 2025 – Current

- Working with Dr. James Hendler to develop a digital audio workstation (DAW) web-application that is suitable for people with learning disabilities and autism using Next.JS.

Aether Software

Troy, NY

Project

Mar 2025 – Current

- Developed an Electron App using Vite/React, Tailwind, and Supabase for rapid delivery.
- Developed edge functions to handle AI requests and an NLP-based tool to generate writing profiles for users, processing 100k+ word documents in < 750ms, with up to 98% compression while retaining stylistic data.
- Led development of web app in Next.JS for users to handle accounts, using Stripe API for payment processing.
- Used SQLite and PostgreSQL to allow users to edit documents offline and sync them online as necessary, allowing back-end to handle 2,000 cloud-sync operations/min while ensuring seamless experience for users.

Rensselaer Motorsport

Troy, NY

New Member Coordinator, Social Media Manager, Embedded Systems Engineer

Aug 2024 – Current

- Working on throttle response and inverter control programming in vehicle control unit (embedded systems, C) for STM32F767Zi microprocessor.
- Managing 90 new members, working with engineering leads to assign projects and lower barrier of entry by managing running list of available opportunities within the team.

DriveU, Ltd.

Bangalore, KA

Business Strategy Intern

June 2023 - Aug 2023

- Collaborated directly with the CEO to develop strategic fundraising presentations, integrating critical financial and operational metrics including EBITDA, total revenue, market expansion, and scaling plans, to effectively communicate growth potential to investors.
- Collaborated with accountants to improve pricing schemas based on market rates and customer interests, projecting to increase revenue by ~14%.
- Produced 3 business proposals with Director of B2B for outreach, projecting B2B MRR increase by ~8%.
- Formulated proposals to enter markets, projecting to increase margins on premium services by ~35%.
- Proposed subscription model on premium services, projected to increase recurring revenue by ~23%.

Trainafy

Gill, MA

Independent Project

Mar 2023 - Nov 2023

- Built and released a cross-platform React Native app using Expo framework for iOS and Android.
- Implemented Firebase back-end to ensure automatic scaling, seamless data transmission, and rapid deployment.
- Created RESTful API in Express to enable efficient data exchange and integration, designed to scale to 100s of calls/sec using Amazon EC2 and PostgreSQL.

BGHD Development, LLC

Cary, NC

Project Manager & Software Engineer

Feb 2017 - Aug 2020

- Served as Lead of Commissioned Projects and as a Software Engineer, producing back-end Java products.
- Led teams of 3-5 in development, testing, and delivery of 30+ commissioned projects valued at \$18,000, ensuring timeliness and high-quality outcomes.
- Developed and deployed 12 projects commissioned between \$250-\$2,450 each, utilizing technologies such as SQL, Git, Trello, and AWS to meet client specifications and maintain robust system performance.

EDUCATION

Rensselaer Polytechnic Institute

Troy, NY

Bachelor of Science in Mechanical Engineering

Expected Graduation: May 2028

Activities: Rensselaer Motorsport, Undergraduate Research

Northfield Mount Hermon

Gill, MA

GPA: 3.77 | Activities: Engagement Leader, Create Club

Aug 2020 - May 2024

SKILLS

- **Languages:** Java, C++, TypeScript, Python • **Platforms:** AWS, GCP, Firebase, Supabase, MongoDB
- **Tools:** Git, Linux, React, React Native, Electron, Unreal Engine • **APIs:** OpenAI, Gemini, Claude