# **Randy Sim**

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## Education

**Brown University** Providence, RI

Sep 2025 — May 2028 B.S. in Computer Science

**Stony Brook University** Stony Brook, NY

Computer Science (33 credits), GPA: 4.0 Aug 2024 — May 2025

**Skills** 

Languages: C, C#, C++, Java, Python, Javascript/Typescript, HTML, CSS/Tailwind Frameworks: Angular, .NET, Django, Express, Flask, NextJS, React, Spring Boot Tools: AWS, Digital Ocean, Docker, Git, Linux, Netlify, Node.js, PostgreSQL, Supabase

**Work Experience** 

**MDL**and Great Neck, NY Jan 2025 — Present

Software Engineer Intern • Built Flask API with Zendesk integration serving 1,000+ clinics for streamlined ticket management.

• Achieved 100% integration test coverage using pytest suite.

• Enhanced iClinic, MDLand's flagship product, by integrating my Zendesk API into existing C# .NET infrastructure.

• Collaborated using Git for version control and Jira for task management and automated status tracking.

# **Stony Brook Campus Residences**

Stony Brook, NY

Software Engineer Sep 2024 — May 2025

• Designed and maintained real-time dashboards for campus device monitoring using C# .NET, Express, React, and SQL, supporting 100+ professional staff.

- Rebuilt PrintStats, Stony Brook's official printer dashboard. Migrated the entire C# .NET backend to Express.js, utilizing asynchronous functions to achieve a 1,100% improvement (6 min  $\rightarrow$  30 sec) in loading printer metadata via SNMP.
- Modernized CI/CD by replacing legacy Jenkins + IIS setup with Github Actions and Windows Services.
- Established separate development environments, tripling throughput and reducing production failure rate to zero.
- Led development within an Agile team, utilizing GitHub and Jira to manage sprint tasks and progress.

### **Personal Projects**

### epsilon.stuysu.org

- Founded Epsilon, an all-in-one platform managing 400+ student organizations at Stuyvesant High School; serves 3,300+ daily users for all club activities, room reservations, and school-wide events.
- Implemented row-level security policies in Supabase PostgreSQL for authentication-based data access control.
- Developed custom Deno edge functions to integrate Google APIs and self-hosted email services.
- Used Typescript, React, and react-router to create a responsive frontend deployed on Netlify.
- Wrote a custom webhook server to enable CI/CD for Supabase containers on DigitalOcean.

#### **News To Go**

- Built an AI-powered news app using Angular and Django, transforming news articles into engaging videos. Amassed 100+ followers through daily automated content.
- Engineered a scalable video pipeline using Selenium, Ollama, and MoviePy. Built a job queue system with multithreading to support concurrent user requests on single-machine infrastructure.

#### Reborn

- Launched a gamified productivity application with NextJS, Spring Boot, and PostgreSQL, implementing stats, reminders, and a death tracker to increase user motivation.
- Managed application infrastructure on AWS EC2 with security groups, git-based deployment, and cost alerts.

# **Relevant Coursework**

• Data Structures and Algorithms: Java

• Systems Fundamentals: C

• Programming Abstractions: Java, Python

• Math: Calculus I, II, III, Discrete, Linear Algebra