Brandon Sun

EDUCATION

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Brown University, Sc.B. in Applied Mathematics & Computer Science

Providence, RI

• Academics: GPA: 4.0/4.0, SAT 1560

Expected May 2028

• Relevant Coursework: Data Structures, Algorithms, & Intractability | Computer Systems | Intro to Software Engineering | Multivariable Calculus | Linear Algebra | Applied Ordinary Differential Equations with Theory

WORK EXPERIENCE

Brown CNTR AISLE Providence, RI

Product Developer

September 2025 – Present

- Architecting a platform to evaluate 100+ AI-related legislation using Next.js, Firebase, and Git
- Refactor backend data pipelines to improve query performance by 40% and reduce code complexity for maintainability
- Collaborating with policy experts and researchers to translate complex analysis into intuitive, stakeholder-friendly UI/UX components

VoltServer East Greenwich, RI

Software Engineering Intern

June 2024 – August 2024

- Expanded automated testing coverage by 200% through Cypress and Jest frameworks
- Developed 75+ component and API tests to validate RESTful endpoints and React-based client interfaces
- Implemented React-based interface updates to support a next-generation power system, coordinating with firmware and QA teams
- Contributed to continuous integration (CI) and cross-functional testing initiatives, reducing regression errors by 30%

TechForTeachers East Greenwich, RI

Founder

September 2022 – June 2024

- Founded nonprofit developing open-source educational software and mentoring students in modern web development
- Recruited and led a 12-person developer team, mentoring peers in React, Python, and AWS to deliver 2 production-grade web tools
- Built company website and internal tools using React and AWS, increasing overall productivity by 50%

VoltServer East Greenwich, RI

Software Engineering Intern – Received return offer

June 2023 – August 2023

- Built automated testing pipelines using Cypress and CI integration, reducing manual QA workload by 40%
- Authored 100+ end-to-end tests to ensure software reliability and performance during hardware-software integration
- Documented 30+ REST API protocols using Swagger, improving developer onboarding and version consistency
- Identified and corrected 10+ API documentation discrepancies, aligning internal and public API references

PROJECTS AND PROFESSIONAL DEVELOPMENT

HackAtBrown Providence, RI

Developer

October 2025 – Present

- Build the annual Hack@Brown website using Next.js, Tailwind CSS, and TypeScript that serves 400+ participants
- Implement animated assets and interactive event features, improving user engagement by 40% during live registration

AI Authenticity Engine | HackHarvard 2025

October 2025

- Trained a custom ResNet50 deepfake detection model on 100K+ real/fake images, achieving 89% accuracy
- Developed a trust-weighted search algorithm distinguishing official brand sources from replica domains to 70% accuracy
- Integrated Google Gemini 2.5 Pro, LLaMA 3.1, OpenCV, and Supabase into a scalable Flask + Nuxt 3 stack for real-time analysis
- Optimized parallel AI analysis to process 10+ vision checks simultaneously while maintaining <30s total response time

TechForTeachersSoftware Team Lead

Website Developer

East Greenwich, RI September 2022 – June 2024

June 2018 – Present

Directed a cross-functional team of 12 developers to deliver production-ready web apps for educators

- Developed SmartGrouper, a React and AWS based web tool enabling teachers to group students dynamically based on class data
- Mentored peers in Python, JavaScript, and modern frameworks (React, AWS), fostering hands-on project experience
- Coordinated sprint planning and issue tracking via ClickUp + GitHub, increasing delivery speed by 25% and reducing blockers

Chinese Family Camp Providence, RI

- Developed a website with 21K+ visits, supporting 230+ yearly campers
- Implemented account management, registration flows, and a content-driven blog system, increasing user interaction by 30%

SKILLS & TECHNOLOGIES

Languages: Python, Java, JavaScript, TypeScript, C, C++

Technologies: React.js, Next.js, Node.js, Firebase, AWS, Cypress, Git/GitHub, Swagger, Figma, Matplotlib