Jake Gustin

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Education

Georgia Institute of Technology

Master of Science in Computer Science — August 2025 - Present

- Specialization: Computing Systems
- Relevant Courses: Big Data Systems and Analytics, Incident Response

Boston University

Bachelor of Arts in Computer Science — September 2020 - May 2024

- Graduated Cum Laude with a GPA of 3.82
- Relevant Courses: Advanced Software Systems, Full-Stack Application Development
- Secondary Bachelor's degree in Film & TV via Dual Degree Program

Experience

Various Organizations

Individual Contractor — January 2025 - August 2025

- Contributed to datasets to improve the accuracy and performance of AI models
- Analyzed failure modes and strengths of prototype AI models in detailed reports
- Implemented comprehensive unit testing to ensure reliability of code solutions

Boston University

Courseware Developer — May 2024 - August 2024

- Developed additional features in open-source software to improve user experience
- Refined course documentation to improve usability of the course's software suite
- Contributed an assignment to the curriculum, testing core Bash and Git knowledge

Undergraduate Research Assistant — January 2024 - May 2024

- Explored CPU energy savings in distributed workloads using Apache Flink
- Conducted experiments with Bash, c-states, and taskset to adjust system configuration
- Produced high-quality visualizations of experiment results with Python and matplotlib

Course/Teaching Assistant — August 2022 - May 2024

- Led low-level programming sessions among 60 students to reinforce core concepts
- Supported 300+ students by holding office hours and answering questions online
- Modified course assignments and grading structures to reflect updated learning goals

Nuance Communications / Microsoft

Software Engineering Intern — June 2023 - July 2023

- Developed a proof-of-concept cloud deployment project with an agile sprint workflow
- Automated testing and deployment procedures with Azure Pipelines and Terraform
- Used Azure Container Apps and Docker to containerize the application's backend

Projects

Jade

Open-Source CPU Schematic Software. Developed with Python, Bash, and JavaScript

- Implemented autosave functionality to improve fault-tolerance of the application
- Created extraction functionality to make schematics compatible with autograders
- Authored documentation and troubleshooting guides to reduce preventable user errors

Skills

Proficient Languages
C • C++ • Python • JavaScript • Bash • HTML • CSS

Familiar Languages
C# • TypeScript • Go • Rust • Java • OCaml

Development Tools
GitHub Actions • Terraform • Docker • Docker Compose • Git • Postman • Make • CMake • Clang

Python Libraries
Pandas • NumPy • Matplotlib • SciPy • scikit-learn • Seaborn

Testing Frameworks
Unittest • Pytest • Jest • Catch2

Frontend Web Development
React.js • Tailwind CSS • Vue.js • Vite • shadcn/ui • Angular • FontAwesome

Backend Web Development
Express.js • Node.js • Flask • FastAPI

Databases
PostgreSQL • MongoDB • MySQL • SQLite • Firebase

Cloud Platforms & Services
Azure Container Apps • Azure Cosmos DB • Azure Pipelines • Azure Static Web Apps

Distributed Frameworks
Apache Flink • Apache Kafka