

Shreyas Donti

508-665-3940 • shreyasdonti15@gmail.com • [linkedin.com/in/shreyasdonti](https://www.linkedin.com/in/shreyasdonti) • github.com/stelleron

EDUCATION

University of Massachusetts Amherst | GPA: 3.82

Exp. Graduation May 2027

B.S in Computer Science + Electrical Engineering (w/ Honors)

Amherst, MA

- **Honors:** Chancellor's Award (\$16,000/yr), Dean's List (4x)
- **Relevant Coursework:** Data Structures & Algorithms, Computer Systems & Organization, Operating Systems, Computer Networks, Embedded Systems, Linear Algebra, Calculus, Discrete Math, Signals & Systems, Circuits & Electronics

EXPERIENCES

Research Intern

Jun 2025 - Present

Wireless & Sensors Systems Laboratory

Amherst, MA

- Using Altium Designer to design a Printed Circuit Board for a wind-powered tree wearable intelligent sensing system.
- Researched & found sensor components to reduce power consumption of by 16% and improve battery life by 58%.
- Spearheading the development of an impedance frontend using the AD5940 integrated circuit, and writing C code to test and communicate with the sensor system with STM32F4 ARM Cortex-M4 processor via SPI protocol.

Technology Team Organizer

April 2024 - Present

HackUMass XII

Amherst, MA

- Co-developed HackUMass hackathon website alongside a team of 5 using React.js, HTML, and CSS for over 1200 participants.
- Prototyped designs in Figma, improving UI/UX and increasing registration by 15%.
- Built a scalable judging platform using Node.js and MongoDB to support scoring of 150+ projects by 10+ judges.

Undergraduate Course Assistant – CS 230: Computer Systems Principles

Jan 2025 - Present

UMass College of Information & Computer Sciences

Amherst, MA

- Teach core systems programming concepts including C, x86 assembly, CPU architecture, virtual memory, threading, and networking to 60+ students.
- Lead two weekly lab sessions; assist with debugging, computer systems, and conceptual understanding.
- Grade 50+ assignments weekly and provide feedback to support student learning and performance

Undergraduate Research Volunteer

May 2024 - August 2024

Manning College of Informatics & Computer Sciences

Remote

- Collaborated with two peers under a Ph.D. mentor to develop a 1-D Convolutional Neural Network with PyTorch for recognizing using gyroscope and accelerometer IMU data with 92.5% accuracy.
- Applied a low-pass Butterworth filter using SciPy and Pandas to extract 280+ time and frequency-domain features from raw data, improving model performance by 18%.
- Presented findings to 100+ attendees with posterboard using visualizations using Matplotlib and Seaborn.

Onboard Processing Sub-Team Member

Sep 2024 - Present

UMass Cubesat

Amherst, MA

- Investigating hyperspectral model deployment on FPGA for satellite image processing.
- Using FINN, Vivado/Vitis to compile PyTorch models for AMD Xilinx Zynq Ultrascale+ MPSoC boards.
- Wrote Python and Bash scripts to automate compilation process of models; improved efficiency by 30%.

PROJECTS

2D Game Engine | C++, OpenGL, SDL, Git

Feb 2022 - Jan 2024

- Built a lightweight 2D game engine from scratch with OpenGL and SDL, handling window/input management, graphics rendering, shaders, audio, and multithreading.
- Designed a high-performance batch renderer capable of efficiently rendering 60,000+ objects per frame at maximum FPS.

Resume Generator App | Svelte, Node.js, Typescript, Express.js, Prisma, PostgreSQL, Docker

May 2025 - August 2025

- Designed a full-stack application using a SvelteKit + TS frontend with an Express.js backend to speed up resume creation.
- Utilized PostgreSQL & Prisma ORM to save data between sessions and for multiple users; using Passport.js to handle secure authentication.
- Used Docker Compose to build a multi-container application for project deployment.

SKILLS

- **Programming Languages:** C, C++, Go, Python, JavaScript, TypeScript, Bash, SQL, HTML/CSS, Assembly, Verilog
- **Frameworks:** React.js, Django, Svelte, Express.js, Matplotlib, SciPy, NumPy, PyTorch, Seaborn, OpenGL3, SDL, GLFW
- **Tools:** VSCode, Neovim, Git, Make, Premake, REST, Docker, Vite, SvelteKit, Slack, Linux, Figma, Node.js, Prisma, SQLite, PostgreSQL, MATLAB, Arduino Uno, Arduino IDE, KiCad, Altium Designer, LTspice, Vivado, Vitis