Max Davis

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Education

Connecticut College, New London, CT — Bachelor of Arts, expected May 2028
Major: Computer Science — Cumulative GPA 3.96
Honors: Dean's High Honors, Connecticut College Grant, Dean's Scholarship, The Franklin Lawrence Scholarship
Computer Skills: Python, MATLAB, Java, React, Node.js, MySQL, HTML, JavaScript, CSS, Microsoft Office, Socket.io, Google Suite, and Canva
Soft Skills: Communication, leadership, adaptability, critical thinking, creativity, and time management
Personal Interests: Music composition, recording, production, and performance on several instruments including saxophone
Language Skills: Spanish (beginner)
South Portland High School, South Portland, ME — Diploma awarded *summa cum laude* June 2024

Select Academic Experience

Frontiers in Computer Science, Computer Science, Connecticut College, *Fall 2025*
- Examines and produces code for front/backend applications
- Builds off class readings with independent research to complete projects, exercising adaptability
- Knowledge of modern physical/digital infrastructure: Cloud computing, networks, routing, bandwidth, CPUs, GPUs, datacenters, kubernetes, full-stack development, AI-assisted development

Data Structures, Computer Science, Connecticut College, *Spring 2025*
- Expressed programs in Java, compiled and ran code with Command Prompt
- Analyzed the run-time and storage efficiency of different algorithms
- Applied various data structures to increase the flexibility and speed of code
- Debugged Java code and interpreted Command Prompt error messages

Multimedia, Computer Science, Connecticut College, *Spring 2025*
- Used matrix operations in MATLAB to analyze and manipulate images and sounds
- Created filters such as blur, edge detection, sharpening tools, green-screen effects, red-eye removal, etc.

Projects

'Everyone's It Tag' **Frontiers in Computer Science,** Connecticut College, Fall 2025
- Created and deployed an online multiplayer Everyone's It Tag game through an Azure Ubuntu VM utilizing socket.io, React, Express, Node.js, HTML, CSS, and GitHub
- Collaborated in a 3-person team to plan the architecture, divide work, and communicate how our components would work together

Social Media Application, **Frontiers in Computer Science,** Connecticut College, Fall 2025
- Created and deployed a Vite-scaffolded React and Express project in Node.js, HTML, CSS, Socket.io, and MySQL through an Azure Ubuntu VM with version control using GitHub and GitHub Desktop
- Built functionality to log in/out, (un)friend, chat, post/delete events and notes, and edit a bio

Audio Processing, **Independent Study**, Connecticut College, Fall 2025
- Meets once a week with an advisor to discuss/assign weekly readings from *Musimathics* or review technical progress
- Develops algorithms to take FFTs of sound waves, convert them to MIDI signals, create a spectrogram of their harmonics, interpolate data, and resynthesize sounds to prepare data for AI analysis
- Uses MATLAB to analyze, process, and visualize data

Work Experience

Connecticut College Intro to Computer Science TA, New London, CT, *Fall 2025*
- Instructs students based on their individual needs and understanding of the present topic
- Inspects and debugs students' code

Connecticut College Arboretum Horticultural Assistant, New London, CT, *Fall 2024 - Fall 2025*

- Assists a team in removing brush, mulching, transplanting, weeding, watering, and removing invasive and sick species
- Operates a Kubota RTV through a network of trails