Devin Murphy

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EDUCATION

Massachusetts Institute of Technology (MIT) **Cambridge, MA**

B.S in Electrical Engineering and Computer Science (May 2022) **GPA: 4.9/5**

- **Relevant Coursework**: Computer Vision, Intelligent Multimodal User Interfaces, Fundamentals of Music Processing, Artificial Intelligence, Robotics: Science and Systems, Feedback System Design, Signals Systems and Inference, Signal Processing, Digital Systems Laboratory, Machine Learning in Data Science and Politics, Fundamentals of Programming, Circuits and Electronics, Digital Communication Systems, Nanoelectronics and Devices, Computation Structures

EXPERIENCE

TA - Biomedical Signal and Image Processing | MIT EECS **February 2024 - Present**

- TA for 6.8800 at MIT, a class covering Digital Signal Processing as it relates to biomedical applications. Digital filtering, spectral analysis, linear predictive coding, image segmentation and reconstruction, random signals.
- Lead office hours and serve as a primary resource for helping understand course materials.
- Lead two lab sessions, helping students with MATLAB based lab exercises in areas such as ECG analysis, speech reconstruction, and image segmentation.

Quality Engineer | MathWorks **September 2022-January 2024**

- Began my career at MathWorks in the Engineering Development Group, where I received in depth training in MATLAB and Simulink products. As a part of the MATLAB Math team, I worked on over 50 cases helping customers use MathWorks products.
- Transferred to a role as a Quality Engineer for MATLAB Home and MATLAB Online, MathWorks' cloud native MATLAB compute products. Full stack testing in Qunit, Playwright, Golang, C++, Gatling, and more.
- Used MongoDB, Express, and React to create internal tools supporting MathWorks' quality initiative. This includes a dashboard for tracking MATLAB Online/MATLAB Home performance, and a tool to manage test users for Online Products.
- Expanded MATLAB Home's non functional test infrastructure by designing and implementing High Availability tests, Scalability Tests, and Performance Tests.

Software Intern | Yoto **June 2022- August 2022**

- Responsible for the design and implementation of a new feature titled 'Yoto Weather', that would provide a kid friendly weather forecast to the Yoto audio player based on the location of the player.
- Built an API for the feature using AWS, Serverless, and Python. Final product utilized google TTS modules and an FFMPEG layer to allow for the creation and combination of virtually any weather forecast audio.
- Created a website for the weather feature as an internal tool for user and content designers to iterate and collaborate on the weather forecast content. Used Javascript, HTML, and CSS.

Research Assistant | MIT Opera of the Future Lab **June 2021- May 2022**

- Performed signal analysis of wind audio recorded with contact microphones using Python, and designed and implemented an accelerometer microphone to record wind as it interacts with a silicone membrane using C++.
- Implemented TCP communication protocol between outdoor accelerometer microphone and indoor sculpture in C++ and Python, as well as a solar power system for the accelerometer microphone.

LEADERSHIP AND VOLUNTEERING

Circuits and Electronics Lab Assistant

- For 4 semesters have staffed office hours for the class 6.002, Circuits and Electronics, to answer questions about the course material and help students debug their circuits.

Chorallaries of MIT

- Raised over $3000 as the group's Business Manager by coordinating gigs and negotiating prices. This gave our group a steady income to pay for concerts and tours.

SKILLS

MATLAB, Python, R, Golang, Javascript, HTML/CSS, C#/Unity, FPGA, SystemVerilog/Vivado, Arduino/C++, Linux, Git Version Control, MaxMSP, Soldering, Fusion360

Unofficial Transcript

Transcript							
Term	**Units** passed/registered	**Subjects**					
Fall 2018	93/105	18.01(S)	18.02(P)	21M.A12(P)	24.900(P)	7.012(P&)	8.01L(T)
		9.01(P)	GEN.APCR(S)				
IAP 2019	15/15	6.145(P)	8.01(P)				
Spring 2019	49/55	18.03(B+)	21M.301(A)	6.009(A)	6.070(DR)	8.02(A-)	MAS.URN(URN)
Fall 2019	48/48	21M.011(A-)	21M.380(A)	6.002(A-)	6.02(B)		
IAP 2020	3/3	6.S092(P)					
Spring 2020	39/39	21M.410(PE)	21M.704(PE)	6.004(PE)	6.012(PE)		
Summer 2020	13/13	11.URG(A)	MAS.URN(URN)				
Fall 2020	54/63	17.835(A-)	2.351(P)	3.091(PE)	6.003(A)	6.111(A-)	STS.043(DR)
Spring 2021	42/42	21M.410(A)	6.011(PE)	6.141(A)	6.302(A)		
Summer 2021	1/1	MAS.URN(URN)					
Fall 2021	37/49	21M.387(A)	6.034(A)	6.041(B)	6.810(DR)	MAS.URN(URN)	
Spring 2022	33/33	21M.271(A)	6.UAT(A)	CMS.636(A)			
Spring 2024	0/36	6.8300() TR1-2.30	6.8510() TR11-12.30	6.THM(,12)			