Daniel Schwartz

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EDUCATION

University of Pennsylvania, School of Engineering & Applied Sciences
Master of Computer Information Technology — Expected Summer 2022
Cumulative GPA: 4.0
Relevant Coursework: Algorithms & Computation, Data Structures & Software Design, Computer Systems Programming, Artificial Intelligence

University of Massachusetts Lowell, College of Fine Arts
Bachelor of Music, Sound Recording & Technology
Cumulative GPA: 3.6 — Magna Cum Laude
Relevant Coursework: Computer Science for Sound Recording

PROJECTS

Chorus FX Pedal — July 2021
Implemented a DSP based chorus effect pedal for the Daisy Seed embedded platform
Technologies: C/C++, libDaisy (HAL), Makefile, ARM Toolchain

Philadelphia Parking Violation Analysis — May 2021
Designed software using N-tier architecture to perform analysis on municipal data
Technologies: Java, JSON Parser, Git

SNES Style Game — February 2020
Built a playable demo for a Super Nintendo style turn-based role-playing game
Technologies: Lua, LÖVE2D, Knife, Push

Twitter Chimes Web App — August 2019
Deployed a web application that transforms a stream of tweets into a piece of music
Technologies: NodeJS, Express, Web Audio API, Twitter API, Bootstrap, HTML, CSS

EXPERIENCE

University of Pennsylvania, School of Engineering & Applied Sciences
Graduate Teaching Assistant — Intro to Computer Systems (CIT593) — Fall 2021

- Held weekly office hours and led recitations for introductory systems class

Futura Productions
Audio & Video Engineer — 2012 - present

- Implemented a concert streaming service during the COVID pandemic
- Engineered, produced, mixed, and mastered audio recordings
- Filmed, edited, managed video productions and streamed concerts
- Developed project goals and multi-stage timelines for clients

Astronoid LLC
Co-owner & Bassist — 2016 - present

- Worked as a team to perform shows internationally as a touring musician
- Wrote, recorded, produced, mixed, and mastered studio albums

TECH SKILLS

Languages:
C, C++, Java, Python, SQL, Lua, JavaScript

Libraries:
JUCE, Port Audio, Catch2, JUnit, Pandas, NumPy, Express, Flask, LÖVE2D, Web Audio API

Tools:
Git / Github, Visual Studio, IntelliJ, PyCharm, Linux Makefile

OTHER SKILLS

DSP Techniques
Object-Oriented Design
Design Patterns
Web Programming
Game Development
Music Production
Videography
Music Composition

CERTIFICATES

Computer Science for Game Development
— Harvard CS50 edX