

David A. Buzzell

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EDUCATION

Carnegie Mellon University, Pittsburgh PA

Bachelor of Science in Electrical and Computer Engineering

May 2017

Bachelor of Science in Music and Technology

August 2017

WORK

EXPERIENCE

Manager at DSP Concepts

March 2023 – present

- Mentor 6 full-time and intern engineers on effective prioritization and collaboration
- Triage all requested features and reported defects from customers and stakeholders, enabling the Product Engineering team to deliver at least 6 on-time releases per year
- Spearhead creation of new Ranked Product Backlog of 700+ items into 25 categories
- Review all requirements, design, and implementation of MATLAB codebase changes
- Revamp the Continuous Integration pipeline to achieve ASPICE compliance goals

DSP Software Engineer at DSP Concepts

July 2021 – March 2023

- Authored the Interpreted Modules feature, enabling external users to distribute their Audio IP to users of the MATLAB Compiled Runtime version of Audio Weaver Designer
- Productized separate Python and Android interfaces for the C real-time audio library
- Performed software maintenance of builds on over 30 targets across 150 repositories

QA Test Software Engineer at DSP Concepts

May 2020 – July 2021

- Architected new Python automation package for embedded deployment with Jenkins
- Expand audio regression test scripts for the Audio Weaver MATLAB platform
- Established code quality analysis and automated reporting for MISRA compliance

Software Engineer at iRobot

Robot Simulator Specialist

November 2019 – March 2020

- Supported uptime of simulated robots in AWS Robomaker running 50 mission hrs/day
- Enhanced automatic log extraction to evaluate simulated robot performance for every robot cleaning mission and auto-populate online reports through SQL queries

Automation Infrastructure Developer

February 2019 – November 2019

- Architected new company-wide Python automation for robot software testing
- Automated robot log file evaluation, reducing manual log review time by 5 hrs/week
- Reduced manual testing time by 30% through weekly 1:1 training sessions

Product Delivery Quality Assurance

November 2017 – February 2019

- Designed 40% of manual test plan for next-gen autonomous cleaning robot software
- Assisted factory operations in quality assurance for release of the Braava Jet m6 robot

RESEARCH

PROJECTS

Depth-Controlled Ambisonic Audio

May 2017 – August 2017

- Interfaced with Microsoft Kinect sensor to track user movements in a 360° speaker ring
- Relayed these movements through MaxMSP to 2nd order ambisonic audio processing
- Replicated a 3D auditory experience by decoding signals for an 8-channel output

RELEVANT SKILLS

Languages: Python, MATLAB, C, C++, Bash, Groovy (Jenkins), CMake

Libraries: AudioWeaver, Pytest, MaxMSP, Jupyter, EAGLE, ROS

Targets: Raspberry Pi, Android, Arduino, STMicro, Hexagon

Audio: Ableton Live, Audacity, MuseScore, Reason, OSC