

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

CERTIFICATIONS

Certified Scrum Master (**CSM**)

January 2020

Certified Scrum Product Owner (**CSPO**)

January 2020

WORK

EXPERIENCE

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 every robot cleaning mission and auto-populate online reports through SQL queries
- Reviewed contributions to 3 different code repositories in C++, ROS, and Python
- Supported Scrum policy changes to improve feature reporting and delivery

Automation Infrastructure Developer

February 2019 – November 2019

- Architected new Python automation for robot software testing company-wide
- Automated robot log file evaluation, reducing manual log review time by 5 hrs/week
- Reduced manual testing time by 30% through fostering adoption of automation
- Collaborated with an 8-person team to deliver new software features every 3 weeks
- Pioneered 466 code standards (Pylint) and distributing code documentation (Sphinx)

Product Delivery QA

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
- Authored first comprehensive documentation of terms and acronyms used at iRobot
- Mentored an undergraduate intern for 3 months validating new product delivery features and development of Linux process monitoring system for new automation

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

Hybrid Instruments

May 2016 – August 2016

- Engineered pre-amplifiers for contact microphones with PCBs designed in EAGLE
- Evaluated performance on 3D printed phone cases with string bows attached
- Characterized analog signal measurement with mobile app development for QA

RELEVANT SKILLS

Technologies: Python, C/C++, Bash, MaxMSP, SQL (Presto)

Interfaces: MATLAB, EAGLE, ROS, Pytest, OSC

Tools: Git, Pylint, Regex, Sphinx, JIRA

Audio: Ableton Live, Pro Tools, Audacity, MuseScore, Reason

COURSEWORK

CS8803-O01: Artificial Intelligence for Robotics (*for the Georgia Tech OMSCS program*)

18-491: Fundamentals of Signal Processing

18-349: Embedded Real-Time Systems

18-551: Signal Processing Systems Design

18-493: Electroacoustics

57-347: Electronic & Computer Music

15-323: Computer Music Info Processing