Maxwell McKinnon

EXPERIENCE

Apple, Cupertino — *Lead Audio ML/DSP Engineer*

2017 - Present

? Currently working on fun things ? (Apple disclosure policy)

Wrote cross platform audio anomaly detection tool that still runs on HomePod, Watch, iPhone, iPad, and MacBook

Wrote DSP feature generation and follow up ML for categorizing and duping issues found with QA automation, still in use

Helped with room adaptation, beamforming, and special HomePod technologies

Solved a lot of Apple specific hurdles to make our team one of the first running full CI on PRs (don't laugh :D, it's true), and it has paid off in full

Inspired and managed many successful ventures in improving cross team tools and collaboration

Volunteer in the Quality Culture Initiative at Apple as Damned Liar (statistician)

Wrote an ML workflow tool over 50 people across Apple swear by, 443 total users

Created and still lead Apple Machine Learning Makers, a hackerspace at Apple for ML enthusiasts — previously there was just an ML research discussion club which is awesome but didn't fulfill me as much as creating does

Maxim Integrated, San Jose — *MTS Audio Applications*

2013-2017

Led a four-person automation team through two revisions of Audio team silicon and designed the layout of the application notes board and test board

Built two analysis tools: xTalk and INLDNL (bathtub method)

Built and presented two audio demos at CES 2017 in Chinese to Huawei executives and English to others

Mentored five field and manufacturing engineers from our China team, in Chinese

Maxim Integrated, Sunnyvale — *Intern Audio Applications*

2011 and 2012

Laser cut the MaxRotator for a HATS testing unit and automated it with Arduino and stepper motors, no longer operational :(

Implemented two microphone solution to digital cocktail party problem (ICA)

Built a tool to dynamically generate the EVKIT GUI for any device — Compare this to previously contracted solution that took weeks per device

Re-used own API to make a tool to generate the Linux ALSA driver header

SKILLS

Audio
DSP

Python
SKLearn
Pytorch
Keras/TF
CoreML
MATLAB

Turi
Docker
Jenkins
Zsh / bash
Pytest
Sphinx

C#

Embedded HW/SW

AWARDS

Maxim Toastmaster 2015 Competition
1st Place

San Jose Toastmaster 2015 Competition
3rd Place

Idaho
M.S. ML

Oregon Tech
B.S. Math B.S. EE

CONTACT

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