

MATTHEW ALDRICH

maldrich@specificity.org • (520) 271-6361 • specificity.org • Boston, MA

EXPERIENCE

Hardware Lead, Tulip Interfaces

Sep 2015 – present

- Organized and supervised hardware go-to-market strategy from seed through series B and beyond
- Invented the edge computing architecture at Tulip: Linux-based industrial compliant computing featuring low jitter, kernel-based GPIO, and analog signal acquisition
- Launched Tulip OS, a Linux OS that runs on 32bit and 64bit \$4.00 ARM SoCs that supports 3 custom baseboards with bootloader and kernel patches
- Created and directed several cross discipline teams yielding 4 new product SKUs and thousands of shipped units
- Defined the hardware product process, led hardware marketing and specifications, and educated sales
- Initiated China-based hardware production and oversaw 4 SKUs move from prototype through production
- Guided the hardware FCC/CE certification processes and advised the electronics design for manufacture for 3 devices

Hardware Engineer, Renaissance Lighting

Sep 2004 – Aug 2008

- Authored/co-authored 5 patents and then licensed technology to Acuity Brands to build technologically advanced lighting systems
- Created a real-time control algorithm using measured color feedback to accurately reproduce many types of daylight
- Designed and programmed several PIC18 MCU enabling wireless communication, control, and lighting scene creation

PROJECTS

Online College Basketball Score Forecasting

Dec 2010 - Present

- Researched and developed low-error methods for online (live) score estimation
- Automated speculation in prediction markets at scale (via an additional bot)
- Programmed a custom engine to visualize the live results and estimation ([video](#))

auroramixer

Mar 2008 – Sep 2008

- Imagined and created an open hardware MIDI controller for DJs and the DIY Ableton/MaxMSP controllerism scene
- Influenced the market and guided open source DJ hardware (featured in [Hackaday](#), [Create Digital Music](#))

EDUCATION

MIT Media Lab, PhD Media Arts and Sciences

Sep 2010 – Aug 2014

MIT Media Lab, MS Media Arts and Sciences

Sep 2008 – Aug 2010

Yale University, BS Electrical Engineering

Sep 2000 – May 2004

SKILLS

- Product: New product design and introduction, product and functional requirement definition
- Management: Waterfall/Gantt, Agile, OKRs
- Hardware: hardware schematic and layout (Altium), embedded Linux design and board bringup
- Compliance: CE/FCC testing, design for manufacture
- Frameworks & Systems: Linux kernel, devicetree, U-boot, Systemd, Yocto (bitbake), Docker
- Languages: C, BASH, R, MATLAB

INTERESTS

- Statistical modeling and prediction
- Drumming (22 years) and music (progressive rock)
- Swimming