

# Brett Sandler

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## 🔧 EXPERIENCE

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### **Stratos Technologies** *Embedded Engineer*

May 2014 – Present

My responsibilities include firmware development, manufacturing root causing, and test system development for a Bluetooth-enabled payment platform. As a cross-functional embedded engineer I am involved in managing manufacturing engineering efforts, quality assurance, and product development.

- Developed and maintained ultra low power firmware on a PIC18. This included a minimal boot-loader supporting over-the-air application upgrades as well as the primary application
- Performed power analysis and accelerated life testing to evaluate the usable lifetime of the Stratos card
- Re-engineered the software used in manufacturing test. This significantly increased visibility and confidence throughout the electronics manufacturing process
- Supported global manufacturing partners remotely and on the factory floor

### **Quantum Signal** *Engineering Intern*

May 2013 – Dec. 2013

Contributed to various projects ranging from an in-house reflow oven to robotics simulation software.

- Designed and programmed circuit boards for control systems
- Wrote control software for lidar and time-of-flight cameras
- Implemented new features in a robotics simulation application

### **Intergalactic Mobile Learning Center** *Research Assistant*

May 2012 – May 2013

Developed the Personal Instrumentation Environment, an Android-based sensor kit intended for use in K-12 classrooms.

- Designed a microcontroller-based front end for a modular set of sensors
- Wrote firmware and an Android application to log data from the hardware front end

### **Kurdak Research Group** *Research Assistant*

Sep. 2011 – Sep. 2012

Çagliyan Kurdak's research concerns the subfield of mesoscopic physics. As a member of his group I was exposed to low temperature semiconductor research and provided the technical support to automate experiments.

- Programmed the control board and PC front end for a system to analyze the properties of an experimental lithium-ion battery network
- Measured and analyzed rechargeable lithium-ion battery candidates for the proposed network

## 🎓 EDUCATION

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### **University of Michigan**, Ann Arbor

Graduated 2013

*B.S.* in Physics

*Minor* in Computer Science

## ⚙️ SKILLS

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- Programming Languages: C, Python, C++, Java
- Platforms: Linux, Windows, Mac OS X, PIC, 8051, ARM