Home Address: 440 E 55<sup>th</sup> St Kansas City, MO 64110

# **Nathan Fettinger**

www.NathanFettinger.com nfettinger@gmail.com (989) 274-6767

Garmin Address: 1200 East 151st Street Olathe, KS 66062

# Objective

To obtain a part time or hourly position in the field of software development with interests in mobile platforms.

### Experience

Garmin International Software Engineer Aviat • Ensure completeness, accuracy, and	ion Panel Mount Displays timeliness of all life-cycle activities	Olathe, KS June 2012 – Present
<ul> <li>Design, review, and certification of n</li> <li>Balance and prioritize issues based o</li> </ul>	ew software modules and technologies n failure conditions and FAA Design Ass	urance Levels
<ul> <li>Component owner</li> <li>Develop and maintain regression test</li> <li>Support and improve PC driven cock</li> <li>Project management for intern drive loads, etc.</li> <li>Write and maintain documentation components</li> </ul>	Demonstration Mode ts as well as benchmarks pit simulators n development; including prioritization on how to configure, develop, and debu	, time estimations, balancing work g the component
Secondary component owner • Supervision of shared software librar • Balance software performance with r • Manage compatibility with multiple h Education	Kernel Library y across all aviation product lines robustness nardware platforms	
<ul> <li>Michigan Technological University</li> <li>M.S. in Computer Engineering         <ul> <li>Relevant Courses: Embedded Sensor</li> <li>System Emergency, Artificial Intellige</li> <li>Optimization, Detection &amp; Estimation</li> </ul> </li> </ul>	Networks, Dist Embedded Control Syst nce, GPU and Multicore Programming n Theory, Advanced Computer Architect	Houghton, MI 2012 ems, Computer Networks, Distribution (Audit) , Graph Theory and ture
<ul> <li>B.S. Double Major in Electrical and Computer</li> <li>Study Abroad: University of Malta</li> <li>Intern at Skyweb Networks</li> </ul>	Engineering Msida, Malta Saginaw, MI	2010 2009 2008

### Thesis

# **PHEV Scheduling and Optimization**

Problem: Charging the batteries of a single PHEV or PEV will increase the residential electricity demand by approximately 40% per household. This aggregated demand will threaten grid stability during peak usage hours

Proposed Solution: Implement a primary distribution controller to collect Location Marginal Pricing (LMP) predictions and vehicular constraints in order to schedule the charging/discharging of participating vehicles in the distribution system

Projected Outcome: This scheduling will optimize power usage through increased the base loads with little to no increase in the peak demand. This can also improve power quality and minimize utility operating costs

## **Teaching Experience**

## **Michigan Technological University**

Graduate Teaching Assistant - Outstanding Teaching Award

7 semesters of teaching Electrical Engineering labs

Learning Center Coach (Undergraduate)

- 2 years in Electrical Engineering
- 2 years in Computer Engineering

## **Computer Skills**

- Programming Languages: C/C++, Java, Python/Perl, Lua, HTML 5, Assembly (ARM/MIPS), Matlab, LaTeX .
- OS Expertise: Microsoft Windows XP/7, Fedora 17-20, Ubuntu 12.04/14.04, Apple OS X
- Compilers: Gcc/G++, Boost Build, Gradle, VHDL
- Developer Environments: Microsoft Visual Studio, Android Studio, Eclipse, Cocos, Trace32, CodeWright, AXD
- Revision Control: GIT, SVN, StarTeam, SCCS
- Hardware/Technologies: TI MSP430, ARM J6/DS-5, Lauterbach, TCP, Microsoft .NET
- Other: Bullseye, Beyond Compare, Wireshark, WordPress, Apache

## **Activities and Interests**

**Private Pilot License** Tae Kwon Do (Black Belt: 1<sup>st</sup> Dan) **AOPA Member IEEE Member** 

Expected 2016 2008 Starting 2013 Starting 2008

Houghton, MI 2011