

Peter Marheine

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Specialized in **systems programming**, particularly low-level and embedded software.

Education

MS in Computing (Computer Engineering), University of Utah.
Expected completion **May 2016**. GPA **3.955**

BS in Computer Engineering, Michigan Technological University. GPA **3.46**

Experience

Software Engineer, Ripple LLC, Salt Lake City, UT June 2015-

- Design and implement new software validation/testing infrastructure.
- Began work on simulation framework for formal testing of embedded software.
- Implement and maintain public API libraries for external use.

Electronics Engineer, Marlin Technologies, Horicon, WI Summer 2014

- Developed automotive controller firmware for external customer.
- Integrated and tested multiple controllers for a single system.
- Created compression toolset for reducing program memory requirements on small devices.

Software Developer, Epic Systems, Verona, WI Summer 2013-May 2014

- Designed and implemented pedigree graph layout algorithm.
- Embedded pedigree layout algorithm in application designed for medical professionals.

Software Engineering Intern, Garmin Intl, Olathe, KS Summer 2012

- Validated embedded C library for use in avionics.
- Created toolkit for machine-level branch tracing on Blackfin processors.

UDC Student Engineer, GE Aviation Systems, Houghton, MI June-December 2011

- Designed and maintained software driving automated acceptance tests.

Academic

Master's Thesis

- Design and implementation of a library OS for Rust applications with a focus on safety and real-time performance.

Advanced Computer Networking, University of Utah Fall 2014

- Performed performance analysis of unikernel server software in virtualized environments as a research group member.

Blue Marble Security, Michigan Tech 2012-2013

- Managed 6-person project team in multiple concurrent projects.

Software Skills

- Experience with many embedded systems, including ARM, AVR, MSP430, Blackfin.
- Familiar with many languages, including C, Python, C#, Java, C++, POSIX shell, Rust, Haskell, Javascript.

Personal

- Contributor to open source projects, notably **Rust**, **LLVM** and **newlib**.
- Personal web site documents minor projects. <http://www.taricorp.net/>