Lee Mracek

github.com/m3rcuriel
lee.mracek@gatech.edu | 669.666.2909 | linkedin.com/in/leemracek

OBJECTIVE

To build on my production environment software experience through larger scale projects or further development on embedded systems through a 2017 summer internship.

EDUCATION

GEORGIA INST OF TECH

BS Computer Science
BS Electrical Engineering
Expected 2020 | Atlanta, GA

MONTA VISTA HIGH SCHOOL
DE ANZA COLLEGE

August 2012 -- June 2016
Final two years of high school were at college.

LINKS

Facebook:// **leemracek**
Github:// **m3rcuriel**
LinkedIn:// **leemracek**

COURSEWORK

UNDERGRADUATE

Adv. Programming in C++
Linear Algebra
Differential Equations
Multivariable Calculus

SKILLS

PROGRAMMING

Proficient:
Java • Shell • Python • C++
C • Matlab • Simulink • LaTeX
Familiar:
Real-time Linux • Android

TOOLS & INFRASTRUCTURE

AWS • Docker • Vagrant
ControlDesk • dSPACE
gdb • Bazel • CMake • Gradle • ant
Jenkins • Travis CI • Gerrit

EXPERIENCE

VALKYRIE ROBOTICS | Head Mentor & Software Engineer

Mar 2016 - Present | Cupertino, CA

- Founded and am assisting a robotics team consisting of high schoolers in the community to enrich their STEM educations.
- Both founding head mentor as well as in charge of all technical work.
- Real-time programming for embedded systems and abstract Python libraries (see 'Mass' in Projects section).
- Manage back-end system including AWS, Google Apps, Confluence, Jenkins, and Gerrit.

GEORGIA TECH ECOCAR 3 | Controls & Modeling

Aug 2016 - Present | Atlanta, GA

- Wrote HIL simulation code for dSPACE using Simulink.
- Used AutomationDesk to write Python unit-test cases for controls.

DIAMOND SYSTEMS | Software Engineering Intern

June 2015 – Sep 2015 | Mountain View, CA

- Managed full software stack as sole software engineer.
- Produced and tested Linux kernel modules for custom hardware.
- Worked with the CEO of Rocket EMS to evaluate hardware and software system and eliminated software as root cause after working with them for several weeks designing newest revision of a PC board.

MONTA VISTA HIGH SCHOOL
FIRST ROBOTICS TEAM | Software Engineering

Aug 2012 - Mar 2016 | Cupertino, CA

- Led and trained groups of freshmen to design and construct our robot code.
- Implemented control theory, stochastic modeling and state-space representation which were used for machine learning and controls code on the robot.
- Developed overarching framework for writing code for math utilities, hardware abstractions and timing methods.

PROJECTS

MASS | Private Repository

With Valkyrie Robotics
Real-time C++ framework for FIRST Robotics. Led and designed code structure and implementation. Achieves 5 ms control loops on real-time hardware with 10 µs standard deviation. Allows effective PID and full state control, Kalman filtering, DMA, and motion profiling.

JARVIS SCHEDULER | github.com/jarvis/jarvis-scheduler

May 2015 – June 2016
Built backend Python for a webapp to help De Anza College students schedule their classes.