Lee Mracek – Résumé

Address	10129 Lockwood Dr. Cupertino, CA 95014	**Mobile Phone** **Email**	+1 (669) 666 2909 lee@mracek.com

Summary

Objective: Great summer internship program to provide value to my employer while enriching my experience.

Background includes four years of real-time programming experience, including for my school's robotics team. Gained full-time work experience in software development at Diamond Systems Corporation, a single board computer design company. Also applied mathematic and engineering concepts from control theory and stochastic modeling in algorithms for robot control. Currently in my high school senior year taking classes at De Anza College including differential equations and linear algebra. Will be attending Georgia Tech University in the fall, majoring in Computer Science and Mechanical Engineering.

- **Software**

  Java, C++, C, Objective-C, LabVIEW, Go, Python (and modules)

Experience

Apr 2015 - *Present*
Monta Vista FIRST Robotics Team
Computer Science and Electrical Mentor | *Systems Administrator*

Implemented control theory, stochastic modeling and state-space representation. Developed overarching framework for writing code for math utilities, hardware abstractions and timing methods. Used statistical methods to reduce error during sensor measurement. Currently working on a library to calculate 2D hermite splines to move the robot accurately.

Jul 2015 - Sep 2015
Diamond Systems Corporation
Software Engineer

Placed in charge of all software, and supporting existing PC boards to consumers. Worked with the CEO of Rocket EMS to diagnose a board fault after working with them for several weeks designing for the newest revision. Gained experience in reverse-engineering the code of my predecessors in order to support consumers and worked hands-on with the boards themselves.

Apr 2013 - 2015
Monta Vista FIRST Robotics Team
Head Electrical and Software Engineering | *Website Administrator* | *Systems Administrator*

Responsible for all software and electrical components of our robot, including writing control algorithms using PID and vision tracking. Migrated team to Java and version control for productivity improvement. Transitioned MVRT to a new web workflow, and switched from a 13 year old hosting platform. Initiated development of Android and iOS applications for data collection during competitions.

Ongoing
Projects

- lighthouse - a simple open-source launcher for ArchLinux using Xlib and XCB in C
- Glowstone - an open-source implementation of the Minecraft Server in Java
- SCSLib - A C++ library for real-time calculation of 2D splines for wheeled robot movement