

Lee Mracek – Résumé

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Personal Profile

I'm a high school student born and raised in Cupertino and currently taking classes at De Anza Community College as part of the College Now program. Software engineering and problem solving are some of my passions, along with rock climbing and French Horn. I have about 7 years of experience working on my own projects in graphics rendering and mobile development, and I have three years of experience doing real-time programming for my school's robotics team. Last summer, I gained solid work experience through working in software development full-time at Diamond Systems Corporation, a single board computer design company.

I'm hoping to find a great summer internship program to enrich my experience and assist your company with my skills in software engineering.

Software Engineering Skills

■ Programming Languages

Java
C, Objective-C, C++
LabVIEW
Perl
Python

■ Web Development

HTML5, CSS3/SASS
PHP Ruby on Rails v3.1
Apache Web Server

■ Miscellaneous

Bash, DOS Scripting
MySQL Server
Subversion, hg, git - source version control

Education

2012 - Now High School - Monta Vista High School, Cupertino

Unweighted GPA - 3.83

Purple and Gold Award - awarded 'Monta Vista Purple and Gold Award for Science' in 2013

National Merit Commendation - awarded 'National Merit Commendation' for 2015

2014 - 2015 Middle College: De Anza - De Anza Community College, Cupertino

<i>Physics 4A</i>	A
<i>Introduction to C++</i>	A
<i>Advanced C++</i>	A
<i>Calculus A</i>	B+
<i>Calculus B</i>	A
<i>Calculus C</i>	A
<i>Basic Chemistry</i>	A

2015 - Now College Now: De Anza - De Anza Community College, Cupertino

<i>Physics 4B</i>	B
<i>Calculus D</i>	A+
<i>Linear Algebra</i>	Planned
<i>Differential Equations</i>	In Progress
<i>Physics 4C</i>	In Progress
<i>Physics 4D</i>	Planned
<i>Intro to Engineering</i>	In Progress
<i>Statics</i>	Planned

Experience

**Jul 2015 -
Sep 2015** Diamond Systems Corporation
Software Engineer

I worked for Diamond Systems over the summer of 2015. I was placed in charge of all software currently in development, as well as supporting their existing boards to consumers. The highlight was working with the CEO of Rocket EMS to diagnose a board fault after I worked with them for several weeks designing the testing suite for the newest revision. I gained experience in reverse-engineering the code of my predecessors in order to support consumers and also worked hands-on with the boards themselves. I gained valuable experience in board manufacturing and diagnostics.

Technologies: DOS, C++, C

**Apr 2014 -
2015** Monta Vista FIRST Robotics Team
Head Electrical and Software Engineering | Website Administrator | Systems Administrator

At MVRT, I was responsible for all software and electrical components of our robot, including writing control algorithms using PID and vision tracking. Under my lead, the team has transitioned from using local projects in LabVIEW to using fully cloud-based projects version controlled in git via Github in Java. This year, we managed our projects using Agile to increase productivity. As Website and Systems administrator, MVRT transitioned to a new web development workflow, administered by me, and switched from a 13 year old hosting platform. I also initiated and worked on the development of an Android and iOS application for data collection during competitions.

Technologies: LabVIEW, Java, C++, OpenCV, Github, Node.js, Linux Hosting, Python

**Jan 2013 -
Apr 2014** Monta Vista FIRST Robotics Team
Vision Lead

Developed algorithms in LabVIEW and OpenCV to track retroreflective targets to guide our robot autonomously. Aided my superiors in transitioning to version control, and assisted in writing portions of our networked control system.

**Jun 2012 -
May 2013** Gravity 3D Engine
Lead Developer

In my freshman and sophomore years, a friend and I worked on a 3D physics and rendering engine and learned a lot about OpenGL, the graphics pipeline, and shader language.

Technologies: C++, OpenGL, GLSL, SVN

Ongoing Open Source Projects

Over the years, I have worked on both my own personal projects and projects on Github:

- 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