# Alex DeBoni

#### Introduction

I am a computer engineer with a background in robotics and automation. I love breaking things apart and learning how they work.

#### Education

2015–2016 Master of Science, Santa Clara University, Santa Clara, CA.

Computer Science and Engineering with a Software Engineering Emphasis

2011–2015 Bachelor of Science, Santa Clara University, Santa Clara, CA.

Computer Science and Engineering with a Mathematics Minor Graduated with Honors and Magna Cum Laude

## Experience

2015-current Software Engineer, Varian Medical Systems, Palo Alto, CA.

Write software to automate and aid in the manufacture of radiation therapy machines. Create design requirements, risk assessment, test case and validation documentations to meet FDA standards for validation of new automation software.

2014-2015 Consultant, Pelican Imaging, Santa Clara, CA.

Wrote code to automate camera testing and validation, through both robotic stages and image post-processing.

2013–2014 Computation Intern, Lawrence Livermore National Laboratory, Livermore, CA.

Developed quickly and inexpensively a functional physical-layer hardware-software simulator and low-level communication testing tools to validate hardware-software interactions.

Ensured maximum operator productivity at the NIF by identifying the root cause and finding a solution for camera failures through the reverse-engineering of drivers and firmware.

2010–2016 **Owner**, *Accufire Systems*, www.accufiresystems.com.

Created software to help competitive shooters practice shooting in their homes with a pulse laser source, utilizing their computer and webcam.

#### Skills

Languages C/C++, C#, Java, Python, MATLAB, SQL

Paradigms Software Formal Methods, Machine Vision, Reverse Engineering

Tools Visual Studio, Eclipse, Git, SolidWorks, AutoCAD, MySQL, SQL Server, Eagle, KiCad

### Awards and Certifications

Santa Clara University Presidential Scholarship

Lockheed Martin National Merit Scholarship

Lawrence Livermore National Laboratory Computing Applications and Research Award LLNL National Ignition Facility and Photon Science Award

## **Interests**

Modular Synthesizers

Craft Beer (See what I'm currently brewing at untappd.com/DeBoniBrewing)

Robotics