

Foliage, Inc. (2008 - 2014)

Projects are ~1-2 year engagements with clients of Foliage (most recent listed first).
Client company names are omitted to adhere with the confidentiality agreement.

Client-Server Windows Application

- **WPF** client application connects with server running **WCF** web services via HTTP requests.
- Lead the development team of three on the client side. Implemented with industry recommended **MVVM** pattern.
- Run-time language switching and user security dynamic views.
- Received two gold awards from Foliage based on client feedback.
- Additional tools: **MS Visual Studio, SVN**

Automated Robotic Assay Machine for Labs

- **Java SWING** UI work on Windows. Developed **JFreeChart** graphs and **NetBeans** wizards.
- **C++/Qt** firmware work on **Ubuntu**. Developed hardware diagnostics infrastructure and custom logging.
- **Ruby on Rails** application hosted on Ubuntu. App provides remote access to hardware.
- Additional tools: **Netbeans, Eclipse, SVN, cmake, log4j, log4cplus, SQL, DBUS, Clojure**

Portable Heart Monitor/Defibrillator

- Adding new features to legacy **C++** code. Added **TCP/IP** networking functionality, updated event handling, and more.
- Class III medical development processes including design, code reviews and testing.
- Received a [gold award](#) from Foliage based on client feedback.
- Additional tools: **Eclipse, ClearCase, Coverity, Rhapsody**

Industrial Multi-tool Programmable Cutting Machine

- **.NET 3.5 C#** Windows application. Created **WPF** UI elements for controlling the system. Wrote assorted business logic code including job queueing, error management, work-flow control, and more.
- Wrote **C++** code for an LCD control panel running on **Windows CE**. The display unit communicates with the hardware allowing manual motor control.
- Received a [gold award](#) from Foliage based on client feedback.
- Additional tools: **MS VisualStudio & TFS, WCF, log4net**

Cryogenic Cooler

- **C++** firmware development. Wrote assorted business logic and infrastructure including custom cooling curves, smart trend analysis and self diagnostics. Controlled through an attached LCD display. Runs in **Windows CE** on an ATMEL micro-controller.
- Additional tools: **MS VisualStudio, VSS, log4cpp**

Drexel University (2010 - present)**MS in Software Engineering**

- [MS in Software Engineering - Computer Science Track](#)
- Online program with virtual classrooms and team collaboration. Majority of work done in **Java** on **Linux**.
- 8/15 courses completed. GPA: 3.83

Lafayette College (2004 - 2008)**BS in Electrical & Computer Engineering**

- Strongly focused on EE concepts with a minor in computer science. GPA: 3.36
- Murray G. Clay '30 Award – Presented to a student who presents an outstanding academic record in engineering or

science.

- Peer tutor program: one-on-one tutoring for underclassman in physics and computer science.
- Semester Abroad – Vesalius College, Brussels, Belgium
- Tools: **MATLAB**, **Linux (fedora)**, **C++**, **Java**,

Intern

Lehigh University: Signals And Communications Research

- Signals and communication research in the Electrical Engineering department. Wrote **C++** and **Matlab** routines to numerically prove the power efficiency improvements of a new transmission algorithm. Contributions to the [publication](#) (uncredited).

Other

Personal Website

- **Ruby on Rails** framework with **JavaScript/jQuery** animations.
- Custom design and code developed in spare time. Self-taught with online resources.
- Source code for the website is publically available on [GitHub](#).

Interests

- Astronomy and physics - Space and Science magazines.
- Photography and graphic design.
- Transportation technology - electric and self-driving vehicles.
- Playing guitar and soccer (not at the same time).