

# Andrew Gillis

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## WORK/INTERNSHIP EXPERIENCE

### Software Development Intern at Nanova (PlasmaDent Division),

November 2019 - August 2020

- Acquired in-depth experience with Microchip Peripheral Interface Controllers (8 bit Series).
- Improved datasheet comprehension and implementation of electrical components and microcontrollers.
- Executed the software development life cycle from the early stages to project end.
- Learned low-level programming operations in C when working with embedded electronics hardware (ADC, arithmetic logic shifts, registers, timers, NCO, etc).
- Collaborated with the lead electrical engineer to troubleshoot hardware problems such as electrical interference.
- Composed official FDA documentation for medical device software in compliance with the requirements for a 510(k) submission.
- Utilized flowchart standards to develop in-depth software documentation.
- Learned the fundamentals of electrical engineering while generating test circuits used to test new device peripherals.
- Designed and implemented the software system used in a Nanova device.
- Trained a software intern to work with embedded electronics.

### Mechanical Engineer at ExoCytronics,

November 2017 - November 2019 & September 2020 - Current

- 2 years CAD experience using Solidworks to create enclosures for an Exocytosis instrument.
- Utilized manufacturing standards, such as clearances, CNC mill part viability, metal bending design and 3D printing clearances.
- Animated a device function demonstration using Blender.
- Collaborated with a four person team throughout the instrument's design lifecycle.

## EDUCATION

### 2018 -Present: University of Missouri - Columbia, MO

Expected Graduation Date: December 2021

- GPA: 3.7 / 4
- Pursuing Bachelor in Computer Science & Math Minor
  - Classes Taken Related to Job Requirements:
    - Algorithm Design and Programming I & II, Advanced Algorithm Design, Introduction to Logic Systems, Assembly Language, Object Oriented Programming, Database Applications, IOS Development, Calculus I-III, Differential Equations, Discrete Math, Public Speaking.

## KEY SKILLS

Mechanical	Electrical and IT	Programming	Administrative
<ul style="list-style-type: none"><li>○ Blender Animation</li><li>○ Solidworks</li><li>○ Autodesk Inventor</li><li>○ Mechanical design and mechanical troubleshooting</li><li>○ 3D Printing design standards and machine maintenance</li></ul>	<ul style="list-style-type: none"><li>○ Circuit Basics (Self taught while at Nanova)</li><li>○ Interfacing Peripherals with Microcontrollers</li><li>● Flowchart Modeling Software (Diagram Modeling Similar to Rhapsody and SysML)</li><li>○ Unix Based Operating Systems</li><li>● Database Modeling</li></ul>	<ul style="list-style-type: none"><li>○ Java</li><li>○ C++</li><li>○ C</li><li>○ Python</li><li>● Swift &amp; IOS development</li><li>○ Assembly</li><li>○ Test Driven Development</li><li>● SQL</li></ul>	<ul style="list-style-type: none"><li>○ Experience in an Agile workflow environment</li><li>● Strong communication skills</li><li>○ Strong team leadership</li><li>● Documentation development</li></ul>

## ACHIEVEMENTS

- Earned University of Missouri highest tier academic transfer scholarship (2020)
- Eagle Scout Rank (2016)
  - Led a First Lego League workshop that 80+ kids attended with team Army Ants. The purpose was to prepare middle schoolers for their Lego Robotics Competition
- CAD team member for the FIRST robotics team Army Ants
  - Designed the support structure for the lifting mechanism, gusset plates and first iteration of the intake system.
  - Collaborated with the rest of the team to win the Rocket City Regionals (2018)