

**EDUCATION** B.S. in Mechanical Engineering, June 2016  
Drexel University, Philadelphia, PA  
GPA: 3.86

**COURSES** **Software:** Advanced Programming Techniques, Data Structures and Algorithms  
**Engineering:** Controls, Finite Element Methods, Fluids, Materials, Thermodynamics

**CERTIFICATIONS**

- Reinforcement Learning (Coursera Specialization, 2019)
- Industrial Internet of Things Pipeline (Lockheed Martin Pipeline Course, 2018)

**SKILLS** **Programming Languages**  

- Python, Perl, Bash, C++, C, JavaScript, MATLAB

**Development Operations Tools**  

- Nexus Repository Manager, Docker, AWS, Jenkins, TestRail, Rundeck, Microsoft TFS

**Software Development Tools**  

- Git, Vim, Sphinx, Selenium, BDD Tools (Cucumber, Behave)

**Software Packaging Tools**  

- RPM, setuptools (Python), npm, MSBuild, NuGet, Chocolatey

**Engineering Tools**  

- ANSYS, Creo, MakerBot 3D printing, Minitab, LabVIEW, L<sup>A</sup>T<sub>E</sub>X

**EXPERIENCE** **The Stratagem Group | King of Prussia, PA**  
*Software Engineer Senior* August 2019 - Present

- Create and maintain Python program to export TestRail project data into an XML file and import into a remote TestRail instance utilizing REST API calls
- Develop automated testing prototypes utilizing JavaScript Cucumber test framework and Selenium web drivers
- Present custom software tools at conferences and product demos to various product stakeholders

**Lockheed Martin, Space Systems Company | King of Prussia, PA**  
*Software Engineer* April 2018 - August 2019

- Automated processes to install, configure, and test software as part of an agile development team
- Implemented a process to create environment-specific packages from a template, reducing source code
- Communicated with test users to help identify and resolve product defects
- Wrote and improved code for a Java project to simulate test scenario events

*Associate Software Engineer* September 2016 - April 2018

- Maintained software archives in Nexus via RESTful API modules written in Perl
- Supported weekly product deployments to a factory test level environment
- Developed and improved End-to-end tests using Selenium and C#
- Configured SSL/TLS certs for web services and applications

## **Optical Diagnostics Lab, Drexel University | Philadelphia, PA**

*Hess Undergraduate Research Scholar*

June 2015 - March 2016

- Monitored vibration on lab equipment with an accelerometer utilizing I2C communication protocol
- Designed circuit board to read data from accelerometer and temperature monitor
- Wrote Python script to process and upload data to Google Drive using Google APIs
- Developed data acquisition and control programs for oscilloscopes and temperature controlled lasers using LabVIEW

## **Drexel University and Children's Hospital of Philadelphia | Philadelphia, PA**

*Senior Design Team Member*

September 2015 - June 2016

- Optimized a laryngoscope blade to improve the success rate of pediatric intubation
- Developed and read input from sensors to detect pressure points on device
- Analyzed MRI scans of pediatric airway anatomy to determine optimal device curvature

## **University City Science Center | Philadelphia, PA**

*Technical Investment Analyst*

September 2014 - March 2015

- Collaborated with local institutions to transition biomedical research into marketable products
- Prepared and submitted grant applications through the National Institute of Health (NIH) and Small Business Innovation Research (SBIR) program

## **Essential Medical | Malvern, PA**

*Product Development Co-op*

September 2013 - March 2014

- Built and tested over 500 vascular closure devices for sealing capability and functionality
- Wrote critical documents, including Assembly Instructions and a Verification Test Plan
- Conducted product experiments in an in vitro model and assisted in an in vivo study

## **PERSONAL PROJECTS**

### **SpotifyAPI Playlist Generator | <https://agnias47.github.io/SpotifyAPI>**

- Generates a Spotify playlist for a user from a text-based list of tracks

### **Secret Santa Selection Manager | [https://agnias47.github.io/Secret\\_Santa](https://agnias47.github.io/Secret_Santa)**

- Makes Secret Santa selections for a group, considering exceptions, and emails the assignments to participants via AWS Simple Email Service (SES)

## **LEADERSHIP & ACTIVITIES**

### **Phi Kappa Psi Fraternity | Philadelphia, PA**

- Chapter President - October 2014 – May 2015
- Scholarship Evaluator - March 2017 - Present
- Regional Officer Training Facilitator - February 2020

## **Engineering Spring in Bochum, Germany | Bochum, DE**

- Took classes with professors at Ruhr-Universität Bochum
- Assisted PhD candidates in a lab performing research on Phase Change Slurries (PCS)