

# ADAM SCHOENBERG

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## WORK EXPERIENCE

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### NASA Johnson Space Center

Robotics Software Engineering Intern

June-August 2019

30+ Hours/Week for 10 Weeks/Year

- On-site internship working with robotics and control systems engineers maintaining existing code
- Supported NASA-CTTSO workshops by assisting professional bomb techs to build simple robots in one week at low cost (under \$2000)
- Developed **Motor Lookup Interface**
  - **RESTful** web-based spreadsheet application using **NodeJS**, **HTML**, and **jQuery**
  - Currently used by robotics engineers to determine appropriate motors for their applications

### FIRST Robotics Competition Team 118

Software Development Lead, Scouting Captain

January-April, 2016-2019

20+ Hours/Week for 20 Weeks/Year

- Worked with robotics engineers to develop a complex robot in six weeks and compete with it around the country
- Developed and maintained robot source code
  - **C++** and **XML** implementation of spline-based autonomous path-planning and PID/feed-forward control loops, over **10,000** lines of code
  - **World Finalist** in 2017, competed against 5,000 other teams worldwide
- Developed and operated **Scouting Database**
  - **RESTful** web-based database application using **NodeJS**, **HTML**, **MySQL**, and **MS Excel**
  - Collected and analyzed over **150,000** distinct values regarding other teams' performance capabilities for strategic purposes

## EDUCATION

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### University of Texas at Austin

Turing Scholar (Computer Science Honors) - B.S.

Plan II Honors - B.A.

GPA: 4.0

Relevant Coursework: Data Structures, Discrete Math, Multivariable Calculus

May 2023

## PROJECTS

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### Spline Graphing Utility

Fall 2018

- **Python** and **XML** graphing application for cubic Bezier splines using **matplotlib** and **numpy** libraries
- Very efficient method for visually testing spline control points without manually solving equations

## LANGUAGES AND FRAMEWORKS

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**Proficient** C/C++, Java, NodeJS, MySQL, XML, Git, MS Excel

**Familiar** Python, HTML, jQuery, Linux OS, Arduino, CSS, JSON

## ACADEMIC ACHIEVEMENTS

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2nd Place, National BPA C++ Competition

May 2017

3rd Place, National BPA C++ Competition

May 2018

Semifinalist, Coltman Chamber Music Competition

March 2019