



# Resume

## Ben Stirling

Email: abenstirling@gmail.com

Cell: 619.792.6410

Age: 17

## Mission Statement

I am a high school senior who is passionate about helping others through providing excellent service or by creating great products.

## Education

**School:** Currently taking classes at Palomar College, planning to **transfer to a UC** school next fall.

**High School GPA:** 4.15

**Goals:** Aiming to major in **computer engineering** with a minor in business.

## Experience

### Robotics:

**2010-2015:** Became proficient in Lego Mindstorms NXT and EV3 by creating robots. Created and programmed dozens of custom battle bots, 3-axis arms, and complex mechanisms.

**2016-2017:** Developed countless scripts and robots using a raspberry pi and Arduino hardware. Gathered skills in **C and Python**.

**2017:** **Co-founded a community robotics team, FRC 6995 NOMAD**, and since then the team has quadrupled in size and currently has over 20 members.

**2018:** Served as the safety captain and worked with the mechanical team, and NOMAD won an award for being the highest ranked rookie team at that year's San Diego Regional.

**2019:** Elected to be the mechanical team lead. This season NOMAD won the 2019 San Diego Regional, won the Qualcomm Innovation award, and competed at the world championships in Houston.

**2020:** Elected to be the highest role on the team, the **president and team captain**. In addition, headed the **design team**.

**2021:** Remains the team captain and design lead, focusing on the redesign that will allow the robot to remain competitive at the next year's regional.

Gained experience with basic mechanical and electrical construction. In addition, plenty of experience with machining, especially with multiple types of 3D printing. Most skilled with design and CAD, with over 2 years of experience with Autodesk Inventor and most recently OnShape for the past few months. Currently improving development skills while working on some autonomous and vision projects with the software team.

## **Leadership:**

Served as the safety captain and mechanical lead. Currently serving as the design lead and team captain. In terms of boy scouts, currently the highest leadership role, **Junior Assistant Scoutmaster**, for Troop 685, the largest troop in San Diego with over 130 boys.

## **Business/Entrepreneurship:**

Ran and organized local STEM camps and classes for kids, and has reached over 100 boys and girls in the past 5 years. In addition, co-developed The NOMAD Alliance which is a website aimed to enable robotics teams with the data they need.

## **Skills**

### **Technical Skills:**

- **Programming experience** in Swift, HTML, CSS, Javascript, Python, Java, C and C++
- **CAD skills** in Autodesk Inventor and PTC OnShape
- **Design expertise** in the FRC robotics vertical
- **CAM skills** in FDM and SLA 3d Printing, along with a custom 3-axis CNC
- Basic **mechanical and electrical skills** (Drill, soldering, wiring, chop saw)
- Intuitive and **sophisticated understanding of iOS**, Apple software and applications.

### **Leadership Qualities:**

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| <ul style="list-style-type: none"><li>• Gracious professionalism</li><li>• Hardworking and driven</li><li>• Outspoken and engaged</li></ul> | <ul style="list-style-type: none"><li>• Honest and humble</li><li>• Charismatic and optimistic</li><li>• Encouraging and empathetic</li></ul> |
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## **Accomplishments**

### **Scouts:**

**2016:** Served as the Webmaster, Patrol Leader, then Assistant Senior Patrol Leader for Troop 685

**2017:** Achieved the rank of **Eagle Scout** after just three years and four months

**2018:** Earned **116 merit badges** over four years

**2018:** Elected to the **Order of the Arrow**, a prestigious leadership group within the BSA

**2019:** Elected to be the **Junior Assistant Scoutmaster** for Troop 685, highest possible youth position

### **Robotics:**

**2018:** Team NOMAD earned **Highest Rookie Seed** award at the San Diego Regional

**2018:** Elected to be the **safety captain** for NOMAD

**2019:** Elected to be the **mechanical team lead** for NOMAD

**2019:** Semifinalist for the **Dean's List award**, which is a prestigious leadership award within the robotics league

**2019:** Team NOMAD **won the 2019 San Diego Regional**.

**2019:** Team NOMAD is awarded the **Qualcomm Innovation Award**, competing at the elite **World Championships** in Houston

**2020:** Unanimously elected to be the **Team Captain** of NOMAD. In addition, also elected to be the design lead

### **Additional resources:**

**LinkedIn Profile:** <https://www.linkedin.com/in/abenstirling>

**GitHub profile:** <https://github.com/abenstirling>

**Design:**

<https://cad.onshape.com/documents/233d52882cb4aaf8a20febba/w/272925d0388c0dc17abda19f/e/3d146b7ac8059e632>