

# Derek Goss

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derekgoss.com

(919) 923-0553

## EDUCATION

**Cornell University, College of Engineering** • Ithaca, NY  
Bachelor of Science, Engineering Physics — 3.629 GPA, Dean's List

Aug 2018 – May 2022 Expected

**Harrington High School** • Rosemont, PA  
International Baccalaureate Diploma — 4.98/5 GPA

June 2018

## EXPERIENCE

### **Cornell Racing (Formula SAE)**

**Ithaca, NY**

#### **Project Team Member**

Oct 2018 – present

Contributes to designing, manufacturing, and racing an electric formula-style race car for official FSAE competitions. Currently helping design and build the car's high performance electric powertrain for 2019-20.

- Built a custom algorithm to select this year's battery cell model and tune battery pack specifications for performance
- Designed robust steel mounts for the accumulator case housing and demonstrated their strength with ANSYS FEA
- Experience producing on-car components with CAD, machine shop equipment, and basic composites manufacturing

### **Virginia Tech Assistive Robotics Lab**

**Blacksburg, VA**

#### **Exoskeleton Design Intern**

June – Aug 2019

Prototyped next-generation wearable exoskeletons for industrial and consumer lifting applications.

- Designed 14 innovative concepts for essential exoskeleton mechanisms and components
- Synthesized technical sketches, CAD models, and physical prototypes into comprehensive system solutions
- Helped produce documentation and define product strategy for lab spinoff company Maroon Assistive Technologies

### **Synchro — synchrostopwatch.com**

**Haverford, PA**

#### **Founder and Developer**

Aug 2017 – June 2018

Created an advanced stopwatch & logging app used in 10+ countries and by NCAA teams.

- Built full iOS app integrated with cloud analytics
- Launched on the Apple App Store in June 2018
- Featured on LetsRun.com

### **Project Cognoma — University of Pennsylvania Greene Lab**

**Philadelphia, PA**

#### **Project Manager and Software Engineering Intern**

June – Aug 2017

Directed development and launch of Project Cognoma, a free online machine learning platform for cancer research. The system analyzes correlations between gene-specific mutations and cancerous conditions.

- Designed and built user interfaces, cloud-based web services, and distributed machine learning data pipelines
- Orchestrated contributions from cancer biologists, data scientists, designers, and open source volunteers
- Delivered educational presentations on modern web deployment technologies at lab-hosted community meetups

### **Solar Energy at Harrington High School**

**Rosemont, PA**

#### **Author, IB Extended Essay**

Sept 2016 – Feb 2018

Wrote a comprehensive report performing a cost-benefit analysis of installing solar panels on Harrington's roof.

- Integrated geospatial mapping, weather modeling tools, and personal interviews with Lower Merion Township officials
- Awarded the highest grade level from the International Baccalaureate Organization
- Paper kept by Harrington as an exemplar for future IB students

## INVOLVEMENT

- Cornell Pi Kappa Alpha 2019 – present
- Cornell Triathlon Club 2018 – present
- Harrington HS Cross Country and Track Teams — Varsity Team Captain, 4-year letterman 2014 – 2018

Product Engineering, Project Management, Digital Development, Marketing & Design, Public Speaking