# **Kyle Betts**

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### **EDUCATION:**

# Cornell University, College of Engineering, Ithaca, NY

Expected May 2022

Bachelor of Science in Electrical and Computer Engineering; Computer Science Minor, Dyson Business Minor for Engineers. GPA: 3.98; Dean's List Fall 2017, Spring 2018, Fall 2018, Spring 2019, Fall 2019 & Fall 2020, Fall 2021.

Relevant Courses: Object-Oriented Programming & Data Structures, Data-Driven Web Applications, Computer Networks & Telecommunications, Fundamentals of Machine Learning, Foundation of Robotics, Intelligent Physical Systems, Embedded Systems.

### Select Project Experience

# Robotic Air Hockey Player, Embedded Operating Systems

- Engineered an air hockey robot opponent powered by a Raspberry Pi and Python capable of strategically attacking and defending.
- Assembled an H-Bot movement system using two stepper motors and used OpenCV for tracking the position of objects.

## Maze Traversing and Mapping Robot, Intelligent Physical Systems

- Collaborated all semester with four other students to build an Arduino Uno robot that transverses a maze using a depth-first algorithm.
- Utilized an RF transmitter to send the layout of the maze to a FPGA, which in turn displayed the maze on a monitor using Verilog.

#### PROFESSIONAL SOFTWARE DEVELOPMENT EXPERIENCE:

Ava Labs Ithaca, NY

Associate Developer Spring & Summer 2021

- Contributed to the design and development of an ERC-20 asset bridge connecting the Avalanche and Ethereum blockchains.
- Expanded the Avalanche JS library with new health check commands for Avalanche node APIs.
   Produced an API that interacted with checkout.com for processing credit card and balance payments for an NFT marketplace.
- Jamex Inc. Ithaca, NY

Software Engineer Intern
Summer 2019 & 2020

- Designed and developed a wireframe for a new touch screen POS terminal user interface using C++ and Qt (QML).
- Implemented an API in C++ for initializing transactions, canceling transactions, retrieving student balances and more.
- Presented weekly progress reports for each of my projects to the head of engineering and the managing director of Jamex.

### LEADERSHIP EXPERIENCE:

# Cornell Men's Ice Hockey

Ithaca, NY

Captain

Fall 2017 - Present

- Engaged in 20+ hours a week of training, practice, and games at the NCAA DI level while balancing a rigorous engineering course load.
- Exhibited teamwork by mentoring 2-3 freshman each year and contributing to three consecutive Ivy League championships.
- Represented Team Canada twice at the U19 World Jr. A Championship, winning the gold medal once.

#### Select Athletics Awards

#### ECAC Student Athlete of the Year Award 2020-2021

Awarded to the top scholar-athlete in the conference as voted by the coaches of each ECAC team.

### Joe DeLibero-Stan Tsapis Award 2018-2019

Exemplified the skilled efficiency, unselfish dedication, and hard-nosed competitive qualities of DiLibero and Tsapis.

# **Cornell University Teaching Assistant**

Ithaca, NY

Computing Technology Inside Your Smartphone

Spring 2019 understand

- Aided a class of more than 80 students during office hours and in-class exercises by helping the students conceptually understand problems and advising students on how to approach certain problems.
- Graded and provided feedback on homework sets and exams while working cooperatively with a team of five other TAs.

# **CAMPUS INVOLVEMENT:**

#### Red Key Athlete Honor Society

Ithaca, NY

Participated in service events with the goal of fostering connections between Cornell athletics and the Ithaca community.

• Nominated by coaches for displaying tremendous leadership, exhibited integrity and responsibility within the varsity program, while showing a commitment to academics and community service.

### Tau Beta Pi Engineering Honor Society

Ithaca, NY

Member

Member

Spring 2020 – Present

Spring 2019 - Present

Inducted into the society for being in the top 12.5% of the College of Engineering Class of 2022 for cumulative GPA.

# Quill & Dagger Senior Honor Society

Ithaca, NY

Member

Spring 2020 - Present

### **SKILLS & INTERESTS:**

- Skills: Python, JavaScript, C++, C, HTML, CSS, Java, Linux, Git, OpenCV, Verilog, ROS, MATLAB.
- Interests: Cloud Computing, Robotics, Machine Learning, Don Juan Water Filter Project, Tennis, Fantasy Football.