# JULIAN ESPADA

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#### **EDUCATION**

## Massachusetts Institute of Technology

August 2018 - Present

Bachelor of Science

Electrical Engineering and Computer Science

Minor in Mathematics

# RELEVANT COURSEWORK

Software Construction (6.031) Linear Algebra (18.700) Computation Structures (6.004) Embedded Systems (6.08)

Intro to Machine Learning (6.036)

Intro to Digital Systems Lab (6.111)

Intro to Communication Networks (6.02) Probability and Random Variables (18.600)

#### TECHNICAL STRENGTHS

Modeling and Analysis MATLAB, Matplotlib, Numpy, PyTorch, Pandas

Project Management Tools Jira, Jenkins, Git, Gradle

Programming Languages Python, JAVA, C, C++, Javascript, MySQL, RISC-V Asm

Hardware Description Languages System Verilog, Bluespec

## **PROJECTS**

# IoT Fishing Game March 2019 - May 2019

In a team of 5, designed a fishing game for an Arduino that interacted with a remote server via WiFi, a GPS module, and an accelerometer to create a multiplayer competitive fishing experience.

# FPGA Digital Audio Workstation

November 2020 - December 2020

Worked with a partner to design an FPGA DAW which takes in USB keyboard HID-standard input, and can record and play back up to 4 simultaneous tracks of 8-bit mono audio at 44.1KHz.

### WORK EXPERIENCE

# kVA by UL

June 2019 - August 2019

- Functional Safety Engineer
- $\cdot$  Performed penetration testing on the diagnostic network of a modern vehicle.
- · Performed CAN Bus data analysis and reverse engineering.
- · Researched into C and C++ usage specifications.

#### **Discover Financial Services**

June 2021 - August 2021

Application Developer

- · Leveraged MariaDB, Jenkins, PCF, JUnit, and Java Spring Boot to create a variety of virtual microservices.
- · Used Scrum Agile Methodology in my work via Jira (daily scrum meeting, sprint backlog, team code reviews).

### EXTRA-CURRICULAR

Spark 2020 Program Director for MIT ESP.

Secretary for MIT ESP.

Game Development and Design Club Treasurer.

Production Manager for MIT E33 Productions.

Avionics Sub-team Member for MIT Rocket Team.