# Frank Elsivan DuBose

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#### Education

HARVARD UNIVERSITY

Cambridge, MA

A.B. Candidate in Electrical Engineering, Secondary Degree Candidate in Psychology

May 2017

Relevant courses: Introduction to Electronics, Social Psychology, Expository Writing, Systems Programming 3.32 GPA

UNIVERSIDAD CARLOS III DE MADRID

Madrid, Spain

Study abroad term; coursework included Materials Science and Industrial Automation

Fall 2015

ATHENS ACADEMY

Athens, GA

800 SAT Math, 710 SAT Verbal, 720 SAT Written, 35 ACT

May 2013

### **Research and Design Projects**

# **HOME AUDIO SYSTEM**

Cambridge, MA & Madison, GA May 2016 – September 2016

Personal Project

Envisioned and fabricated entire 6-part home audio system with no prior experience in audio equipment

- · Researched electronics and acoustics information needed to construct both amplifiers and speaker cabinets
- Studied and mastered unfamiliar electrical circuits to integrate with circuits of my design
- Thoroughly tested each component piece-wise before assembly of electronics

# Medical Device Design (ES-227) GAIT ANALYSIS DEVICE

Cambridge, MA

Team Member

January 2016 - May 2016

Semester-long project prototyping novel wearable device to monitor acceleration and angle of tibia during running

- Interviewed physicians and researchers to pinpoint medical need for running form monitor
- Researched prior art in commercial field and analyzed functionality and performance of current devices
- Worked with team for 15-25 hours each week and completed a proof-of-concept final product

### Joy of Electronics (ES-52) BICYCLE SAFETY SYSTEM

Cambridge, MA

Team Member

*April* 2015 – May 2015

Overhauled a typical bicycle by incorporating odometer, turn signals, speedometer, and proximity sensor

- Brainstormed areas of college life that could efficiently and effectively be improved with electronics
- Considered all features we could think of, then selected only the most practical and widely-applicable options
- Divided main components above among teammates but collaborated on the more challenging elements

# **Leadership Experience**

# EXPRESSIONS DANCE CREW

Cambridge, MA

Choreographer

September 2016 – October 2016

Organized 4 hours of weekly rehearsal, choreographed for 6+ hours weekly, arranged show lighting and formations, tutored dancers who missed rehearsal, arranged social events for team bonding

# HARVARD SUMMER SCHOOL

Cambridge, MA

Proctor (2015, 2016), Assistant Coordinator (2015)

Summer 2015, Summer 2016

As proctor, supervised 30 students and worked closely with 13 co-proctors and dean. As assistant coordinator, finalized logistics for 25+ trips available to summer school students and trained proctors on how to chaperone trips

## Language, Technical, and Creative Skills

Intermediate Spanish: 4 years of high school Spanish, 2 semesters of college Spanish, semester abroad in Spain

Laboratory Electronics: Analog and digital, soldering, oscilloscopes, power supplies, AC and DC signals

**Programming:** Experience with C, HTML, CSS, SQL, Matlab, STATA, Unity Pro

Creative Design: Painting, drawing, photography, pottery, 3D design, woodworking