

# Frank Elsivan DuBose

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## Education

### HARVARD UNIVERSITY

Concentration Candidate in Electrical Engineering, Secondary Degree Candidate in Psychology  
Relevant courses: Solid-State Electronics, Probability, Social Psychology, Expository Writing  
3.32 GPA

Cambridge, MA

May 2017

### UNIVERSIDAD CARLOS III DE MADRID

Study abroad term; coursework includes materials science and industrial automation

Madrid, Spain

Fall 2015

### ATHENS ACADEMY

800 SAT Math, 730 SAT Verbal, 710 SAT Written, 35 ACT

Athens, GA

May 2013

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## Design and Engineering Projects

### AUDIO SYSTEM – SPEAKERS AND AMPLIFIERS

Cambridge, MA & Madison, GA

Personal Research & Development Project

May 2016 – September 2016

MTM stereo & subwoofer cabinets, preamp & power amplifiers built with no previous experience in audio

- BR100 LM3886 amplifiers (3 channels)
- Modeled & built stereo and sub cabinets
- Learned EAGLE for PCB design
- Minimized potential for standing waves
- Constructed appropriate linear power supplies
- Debugged all circuitry in lab setting

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

Cambridge, MA

Team Member (1 of 4)

January 2016 – May 2016

Semester-long project prototyping wearable running device; daily collaboration and weekly presentations required

- Conducted research to acclimate to topic
- Rehearsed presentation style and slide design
- Determined hardware/software approach
- Gained project management experience & team-building experience
- Coded Matlab to restructure data for use

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

Cambridge, MA

Team Member (1 of 3)

April 2015 – May 2015

Bicycle circuit aimed at improving safety; featured numerous mixed-signal components

- Designed clock signal integral to circuit functionality
- Designed digital odometer using various ICs
- Collaborated on analog speedometer
- Assisted in integration of speedometer, odometer, proximity sensor, turn signals

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## Leadership Experience

### EXPRESSIONS DANCE CREW

Cambridge, MA

Choreographer

September – October 2016, February – March 2017

Organized 4 hours of weekly rehearsal, choreographed for 6+ hours weekly, arranged show lighting and formations, managed attendance and knowledge levels of team members, arranged social events for team bonding

### HARVARD SUMMER SCHOOL

Cambridge, MA

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

Summer 2015, Summer 2016

As proctor, met weekly with 30 students, coordinated curfew checks, publicized events. As assistant coordinator, finalized logistics for 25+ trips, trained proctors to lead trips, communicated with venue administrators.

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## Skills and Work History

**Work History:** Benchmark Automation, Georgia Civil, Harvard Athletics, Harvard Dorm Crew

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

**Programming:** Experience with C, Assembly Code, SQL, Matlab, STATA, HTML, CSS, Unity Pro, Python, Vim

**Intermediate Spanish:** 4 years of high school Spanish, 3 semesters of college Spanish, semester abroad in Spain