Francisca Vasconcelos

http://web.mit.edu/francisc/www/index.html

francisc@mit.edu | 858.353.5367

EDUCATION

MIT

BS in EECS+Physics

Grad. May 2020 | Cambridge, MA

Cum. GPA: 5.0 / 5.0

Major GPA: 5.0 / 5.0

TORREY PINES HS

Grad. June 2016 | San Diego, CA

Top 4 Student in Science, Math, Art

National Merit Scholar Finalist

National AP Scholar

UW GPA: 4.0 / 4.0

W GPA: 4.6 / 4.0

LINKS

Scholar:// **Francisca Vasconcelos**

Github:// **FranciscaVasconcelos**

LinkedIn:// **franciscavasconcelos**

YouTube:// **Francisca Vasconcelos**

COURSEWORK

FRESHMAN [2016-17]

Intro to EECS via Robotics

Intro to Quantum Computing

Intro C++/C • Intro Python

Mechanics • Electromagentism

Differential Eq. • Multivar. Calc

Mens et Manus

SOPHOMORE [2017-18]

Math for CS • Linear Algebra

Probability • Signals & Systems

Intro Algorithms • Waves (Physics)

Mechanics • Electromagentism

Differential Eq. • Multivar. Calc

SKILLS

PROGRAMMING

C/C++ • Java • Python • Unix

HTML • CSS • React • Swift (iOS)

Mathematica • Android • LaTeX

SOFTWARE

OpenCV • Sci-Kit Learn

HARDWARE

Solidworks • 3D-Printing • Arduino

Laser-Cutting • RaspberryPi

ATHLETICS

MIT Women's Club Soccer

MIT Women's Club Water Polo

PUBLICATIONS

Vasconcelos, F., Vasconcelos, N., Person-following UAVs. In the proceedings of IEEE conf. Winter Applications of Computer Vision (WACV), Lake Placid, NY, March 2016.

EXPERIENCE

NASA JPL | Ground Communications (333K) Intern   June – August 2017 | Pasadena, CA

- Building a Spatial Power Combining Amplifier for the Deep Space Network
- Data Visualization & GUI with React, establishing wireless network between ESP32s & central server

MIT CSAIL | NETMIT Undergraduate Researcher   Oct 2016 – June 2017 | Cambridge, MA

- Developed "Smart Home" application of Prof Dina Katabi's wireless location tracking tech
- Helped build data collection iOS app for machine learning algorithm

FBK WEBVALLEY | Student & Developer   June – July 2016 | San Lorenzo, Italy

- Machine learning & signal processing for classification of fruit spectroscopy data

PROJECTS

Object Recognition Based UAV Control (Person-following UAVs)   July 2014 – May 2016

- Programmed drone to follow people based on computer vision recognition of worn badge
- http://svcl.ucsd.edu/projects/dronefollow/

Shape-Shifting Origami Robotics   Nov 2015 – July 2016

- Designed, 3D-printed, & built robot (inspired by principles of origami) that folds into many shapes

Quantum   July – August 2015

- Developed app that explains Standard Model to make quantum physics accessible & understandable
- 100,000+ Google Play installs, presented to Congressman Scott Peters, displayed in US Capitol Building

Maker Portfolio!

- To check out other smaller projects I worked on (and videos!) visit my website and click the Maker Portfolio button (I also have an Art Porfolio)

LEADERSHIP

2016-18	MIT Society of Women Engineers	Technology Chair
2016-18	MIT IEEE Undergraduate Technology Research Conference	Papers/Posters Chair
2017-18	MIT Academic Advisor (Prof Dennis Freeman)	

ACCOLADES

2016	MIT Museum "Girl's Day: The Secret Life of Robots" Invited Speaker
2016	Intel ISEF "Robotics & Intelligent Machines" 2nd Place Grand Award
2016	Intel ISEF Fundazion Bruno Kessler WebValley Special Award
2016	District 52 Congressional App Challenge Winner
2016	NCWIT Aspirations San Diego Winner & National Runner-Up
2016	Southern California Junior Science & Humanities Symposium 1st Place
2015+16	Greater San Diego Science & Engineering Fair Sweepstakes (1st Place)
2015+16	Intel Excellence in Computer Science Award
2015	Intel ISEF "Robotics & Intelligent Machines" 4th Place Grand Award
2015	Intel ISEF CERN & United Technologies Special Awards
2015	National Merit Scholar Finalist
2014	Trained with Portuguese WU17 National Soccer Team
2013	California Senate Award

SCHOLARSHIPS:

SWE GE	SD SWE ViaSat	Professional Engineers in California Gov	SWE Paula Loring Simon
SD AFCEA	SanDisk Scholar	National Space Club Foundation Finalist	Athena Pinnacle