

Emmanuel Cruz

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General Skills

Purpose: To disencumber the U.S and world healthcare system by creating and implementing modern techniques in software to hasten the process between drug development, patient survival and recovery.

Education:

In Progress... **Masters of Engineering, Computer Science.**

August 2018

Cornell-Technion University

- Enhanced background with certified courses...
 - Intro to CS with Python (MIT 6.00.1x)
 - Intro to Computational Thinking (MIT 6.00.2x)
 - Intro to Linear Models and Matrices (Harvard PH525.2x)

Bachelors of Science, Chemistry. Psychology Minor.

August 2014-May 2018

University of South Florida

- Graduated Cume Laude
- Received Courageous Bull Award
- Selected for Florida Scholars Award

Research Experience:

Drug Discovery, Leahy Group

University of South Florida- Undergraduate

May 2016- May 2018

- Designed and executed independent synthesis projects
- Presented research at four conferences
- Synthesized compound tetrahydrocannabinol $\Delta 9$
- Enhanced enantiomeric excess through enzymatic and organic agents
- Certified in nuclear magnetic resonance spectroscopy
- Certified in liquid chromatography-mass spectrometry

Nuclear Magnetic Resonance Center

University of South Florida - Undergraduate

October 2017- May 2018

- Restore corrupt shim-maps
- Learning NMR assembly
- Perform and analyze live reaction monitoring
- Trained for manual NMR operation and calibration

Neuroscience & Addiction, Gulick Group

University of South Florida- Undergraduate

May 2017-December 2017

- Checked data error using variance tests
- Created and facilitated independent project
- Performed western blots on brain tissue
- Certified Mouse/Rat injection, euthanasia, breeding

Publications:

- **Organic Letters**, Enantioselective Total Synthesis of Cannabinoids- A Practical Route for Analog Development. Shultz, Z; Cruz, E; Leahy, J. ID: ol-2017-03668r

✓ **Bilingual**
(Spanish and English)

✓ **HTML/CSS**
proficiency

✓ **Java**
proficiency

✓ **Python**
proficiency

✓ **Microsoft Office** (Word, Excel, Power point)

Leadership:

President/Founder of Alpha Mu MD PHD Organization

University of South Florida

April 2017-May 2018

- Organized executive positions
- Executed fundraisers for charity events

Work Experience:

Academic Success Center Tutor

University of South Florida

August 2017-Current

- Tutor subjects Organic and General Chemistry I & II
- Coach approximately 11 students/hour
- Advertise to large student assemblies

STEM Academy Peer Mentor

University of South Florida

August 2016

- Guided labs through protein assays
- Inspired new students into science
- Facilitated friend groups and healthy college environment

Volunteering:

Gynecologic Pathology Observation

(08/2015 – 01/2016) Moffitt Cancer Center, Tampa –
(12902 USF Magnolia Drive, Tampa, FL 33612)

- Classified varieties of cancer tissue biopsies
- Participated in autopsy
- Attended weekly neurosurgery board meetings
- Relayed live-surgery pathological confirmations

Radiation Unit

(2016) Moffitt Cancer Center, Tampa

- Answered common treatment questions
- Lead patients through facility to radiation sessions
- Provided patients nourishment and comfort items

References:

Dr. James W. Leahy

University of South Florida- Tampa, Department of Chemistry
jwleahy@usf.edu | (813)-974-4642

Dr. Richard Pollenz

University of South Florida- Tampa, STEM Academy Leader
pollenz@usf.edu | (813)-974-6734

Zoraya Betancourt

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