Cyril Jerome Bernardo

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EDUCATION

NEW YORK UNIVERSITY
M.S. Mechanical Engineering
Expected May 2017 | Brooklyn, NY
Cum. GPA: 3.47/4.0
Fluid Dynamics & Thermal Systems
Controls & Dynamic Systems

B.S. Mechanical Engineering
Minor in Aerospace Engineering
Expected May 2017 | Brooklyn, NY
Cum. GPA: 3.49/4.0

AWARDS

Dean's List
Promise Scholar
Who's Who Among Students Nominee
Theta Tau Foundation Scholarship

LEADERSHIP

THETA TAU AT NYU
Founding President, 2014-2016
New Member Educator, 2015

STUDENT ACTIVITIES
Student Council
Ext. Programming Chair, 2015
Secretary, 2014
Mentor, 2013-2015
New Student Orientation
Intern/Captain, 2015
Leader, 2013-2014

IFA AT NYU
Vice President, 2015
Music Director, 2014-2015
Jr. Music Chair, 2013
Sophomore Representative, 2013

SKILLS

PROGRAMMING
MATLAB • Python • Arduino

SOFTWARE
Simulink • Git • LabVIEW •
Creo Parametric • SolidWorks •
COMSOL Multiphysics • ANSYS

EXPERIENCE

NASA JOHNSON SPACE CENTER | Engineering Intern
Aug 2016 - Present | Houston, TX
- Saving agency $1,000 per hour by improving current structure and program design of radiation beam degrader
- Supporting International Space Station communication systems between nodes through rapid prototyping and simulation of acoustic diverters designed in Creo
- Developing optimization acoustic simulations in COMSOL for communication systems in extravehicular activity (EVA) suits

WARBY PARKER | Applied Research Intern
Jun 2016 - Aug 2016 | New York, NY
- Warby Parker was named "2015's Most Innovative Company" by Fast Company
- Met with company stakeholders to determine potential for physical technology to improve product quality, customer experience, etc.
- Developed computer vision algorithms created in Python
- Prototyped wireless wearable technology using Arduino-compatible parts
- Collaborated with a senior researcher to conduct a company-wide research study to evaluate trends in frame fit and facial features
- Devised and piloted an executive-approved program that integrates current company technologies

SPACEX HYPERLOOP POD COMPETITION | CFD Analyst
Feb 2016 - May 2016 | Brooklyn, NY
- Worked on an interdisciplinary team of NYU engineering students who were in the final rounds of SpaceX's Hyperloop Competition
- Used ANSYS Fluent to test air bearing subsystem iterations of air distribution grids to achieve a 1mm-thick air bearing between pod and housing tube
- Taught underclassment to design test iterations and consulting on correct assumption for successful simulations

MT. SINAI ICAHN SCHOOL OF MEDICINE | Project Contributor
Sep 2015 - May 2016 | Manhattan, NY
- Collaborated with other NYU engineering students to improve the process of harvesting fly embryos by 300% for more frequent care of cancer patients
- Preliminarily validated design ideas using concepts of fluid dynamics and material properties to ensure safe transport of sensitive fly embryos
- Built the distribution axis system combining 3-D printed distributor head, linear rails, limit switches, belts, pulleys, and motors

PARTICLE, INTERFACE AND FLUIDS LAB | Graduate Researcher
Jan 2015 - Jun 2015 | Brooklyn, NY
- Used COMSOL Multiphysics to design and test two concentric capillaries ejecting two immiscible fluids
- Observed the behavior of jet droplet breakup through varying: geometries, Weber numbers, and Capillary numbers
- Developed a deeper understanding of CFD and mesh sizing by defining success criteria dependent on degrees of freedom