

# 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

### NASA PAXC

Director of Communications, 2016

### 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

- Support International Space Station communication with Mission Control through rapid prototyping and simulation of acoustic diverters designed in Creo
- Develop optimization acoustic simulations in COMSOL for audio transmission in extravehicular activity space suits
- Reconfigure mechanical design of radiation beam degrader allowing a modular configuration of HDPE
- Devise logic in Arduino and GUI in LabVIEW for radiation beam degrader
- Organize inter-center communications across the agency as the Director of Communications of the Pathways Agency Cross-Center Connect network

### WARBY PARKER | APPLIED RESEARCH INTERN

Jun 2016 - Aug 2016 | New York, NY

- Warby Parker was named "2015's Most Innovative Company" by Fast
- Consulted with company stakeholders to determine the potential of physical technology to improve quality control, customer experience, etc.
- Developed computer vision algorithms in Python
- Prototyped wireless wearable technology with Arduino-compatible parts and processed data real time in Python
- Collaborated with a senior research to conduct a company-wide study evaluating 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 and placed in the final round 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
- Guided underclassmen on the design of test iterations and consulted on correct assumptions 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

- Designed and benchmarked simulations—using COMSOL Multiphysics—of two concentric microcapillaries ejecting immiscible fluids
- Observed the behavior of jet droplet breakup through varying: geometries, Weber numbers, and Capillary numbers