

Cyril Jerome Bernardo

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EDUCATION

NEW YORK UNIVERSITY

M.S. MECHANICAL ENGINEERING

Expected May 2017 | Brooklyn, NY

Cum. GPA: 3.44/4.0

Fluid Dynamics & Thermal Systems
Controls & Dynamic Systems

B.S. MECHANICAL ENGINEERING

Minor in Aerospace Engineering

Expected May 2017 | Brooklyn, NY

Cum. GPA: 3.48/4.0

AWARDS

Dean's List

Harold Hertzberg - Student Leadership

President's Service Award

Promise Scholar

Who's Who Among Students Nominee

Theta Tau Foundation Scholarship

SKILLS

PROGRAMMING

MATLAB • Python • Arduino

SOFTWARE

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

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, 2013-2015

Sophomore Representative, 2013

EXPERIENCE

WARBY PARKER | APPLIED RESEARCH INTERN

Jun 2016 - Aug 2016 & Jan 2017 - Present | New York, NY

- Warby Parker was named "2015's Most Innovative Company" by Fast Company
- 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

AERODYNAMICS LABORATORY | GRADUATE RESEARCHER

Jan 2017 - Present | Brooklyn, NY

- Develop CFD simulations in ANSYS Fluent for NASA's Titan Submarine in submerged conditions
- Create 3-D mesh of fluid domain suitable for turbulent flow around submarine
- Present data and findings to NASA Glenn Research Center

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
- Redesign and build the mechanical and electronic systems of a radiation beam degrader in Arduino and LabVIEW
- Rapidly prototype versions of an audio interface unit based on human-in-the-loop feedback of astronauts for the Orion spacecraft
- Organize inter-center communications across the agency as the Director of Communications of the Pathways Agency Cross-Center Connection network

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