# Nathaniel Parel Fontanilla

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#### **EDUCATION**

# University of California - Berkeley

**Expected Graduation May 2024** 

**Major: Physics** 

Completed all lower division Math/Physics/Computer Science Major Classes

## **EXPERIENCE & LEADERSHIP**

# Engineering Rep May 2022 - Present

Pilipinx Association of Architects & Engineers

- Act as Club representative in the Engineering Student Council to perquire yearly funding.
- Collaborate with Life Science & Environment Design Rep to produce & distribute a biweekly Newsletter.
- Connect with Companies & Organizations to host professional growth driven workshops & presentations.
- Lead a small team of interns through the design process & execution of an engineering project.

#### Founder / Vice President / Alumni Advisor

April 2020 - May 2022

BCC Electronics & Engineering Club

- Provided the school's first 3D Printer totaling \$1,800 by **Initiating & Managing** fundraising campaigns.
- Organized an internship workshop with over online 20 attendees in Collaboration with two other clubs.
- Hosted a UC Berkeley professor as a speaker with over 15 in-person attendees by **Fundraising** \$300.
- Led & Coordinated a volunteering event with 10 volunteers by patrolling Oakland Chinatown.
- Actively grew club membership & retention to over 40 active members through person-to-person interaction & effectively **Communicating** the club's values.

#### **Environmental Science Intern**

January 2017 - April 2017

Redwood Forest Foundation Inc.

- Drafted & finalized weekly Newsletter for company wide use & distribution.
- Facilitated in the development & completion of two company fundraising events.
- Acted as the company ambassador to the local high school & point of contact for students.
- Conducted land surveys using company equipment to collect data for old growth forest documentation.

# **PROJECTS**

# Novo Education Marine Observatory (NEMO)

August 2017 - June 2018

- Developed a submersible probe that collects instrument data with Embedded Micro Design, C & CAD.
- Deployed probe to measure instrument data (pH, temperature & salinity ) & tested live video & sound.

## Path Finding Algorithm for Safety Patrols

February 2021

- Collected & Organized crime & location information into a database for analysis & visualization.
- Created path-finding algorithm to optimize safety patrols in Oakland Chinatown with Graph Theory & C++.

# Culinary App Project

May 2021

- Utilized hashmaps to develop application to provide recipes with provided ingredients.
- Displayed repository of recipes & on-hand ingredients through interactive GIU coded in Java.

#### **AWARDS & HONORS**

- Eagle Scout Rank National Award
- Best Inclusiveness Hack Hack Merced VI
- Best Community College Hack Sac Sacks
- Academic Honor Student Summer 2020 Spring 2021

## **SKILLS**

Technical: C++, Python, Java, HTML, CSS, Figma