

# PABLO CESAR BEDOLLA ORTIZ

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## EDUCATION

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### Illinois Institute of Technology

B.S. Mechanical Engineering

Chicago, IL

Aug 2024 - May 2027

### Dominican University

B.S. Mathematics, Minor in Physics *GPA: 3.8*

River Forest, IL

Jan 2023 - May 2027

### Columbia College Chicago

(Transfer) B.S. Computer Programming *GPA: 3.8*

Chicago, IL

Sep 2021 - Dec 2022

## EXPERIENCE

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### NASA Jet Propulsion Laboratory

(398D) Instrument Operations Engineering, Internship

Remote

Sept 2024 - Present

- Designing Python-based algorithms for telemetry data extraction and analysis to monitor the health of the Advanced Microwave Radiometer for Climate (AMR-C) External Supplemental Calibration System (SCS) instrument aboard the Sentinel-6 satellite, supporting operations and engineering teams.
- Extended year-round offer funded through NASA's Minority University Research and Education Project (MUREP), working with (398D) Instrument Operations Engineering to optimize flight operation procedures for Sentinel-6 instrument systems using real operational data.

### NASA Jet Propulsion Laboratory

(398D) Instrument Operations Engineering, MSP Fellowship

Pasadena, CA

Jun 2024 - Aug 2024

- Migrated and extensively refactored a Sentinel-6 test-telemetry analysis tool, optimizing directory walks to effectively derive quantities from telemetry documents and streamline data ingestion processes.
- Conducted operational data analysis and visualization for Sentinel-6 instrument operation systems using real operational data to optimize flight operation procedures.
- Modular statistical and graphical tool and in-house framework built using Python, NumPy, and Pandas to analyze and sort binary telemetry data, enabling efficient troubleshooting and monitoring processes.

### NASA L'SPACE Academy

MCA Student, Team Chief Scientist

Virtual

Jan 2024 - May 2024

- Lead the science development of mission milestones for MDR, MCR, PDR, and SRR mission papers.
- Lead mock-simulated scientific research for Mars rover instrumentation and command data handling concept, specializing in science instrumentation.
- Earned certifications for teaming skills, requirements analysis, project management, system engineering in aerospace and risk management for mission success.

### Intuit Credit Karma

Software Engineer Intern

Ballantyne, NC

May 2023 - Aug 2023

- Backend Engineer leveraging Node.JS, TypeScript, JavaScript, and YAML. Utilized Mocha, Jest, and Sinon for unit testing and migrating existing testing frameworks.
- Improved testing efficiency, enhanced revenue through data optimization, and contributed to a major app iteration through research and testing.

### Columbia College Chicago

Computer Programming Tutor

Chicago, IL

Sep 2023 - Dec 2023

- Mentored students in C#, C++, HTML/CSS/JavaScript, and Python.
- Engineered a Python web scraper with Selenium to unveil vulnerabilities in the institution's social networking system and collaborating with vendors for resolutions.
- Assisted in departmental hardware migrations and oversaw equipment maintenance.

## PROJECTS

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### NASA MUREP MINDS Python, Arduino, LIDAR

<https://shorturl.at/vyAOi>

- Lead "Science and Technology Applications for Research in Space" at home institution, a private 10-student, 3-faculty research team for NASA's Artemis mission.

- Conceptualized fixed LIDAR data collection device prototype for the NASA Artemis mission challenge for slope computation, elevation modeling, and autonomy, emphasizing field-of-view perspective data.
- Secured \$1,500 in funding from NASA to support research initiative following a research proposal. Second place in Technical Paper Award.

#### SKILLS

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Technologies: Python, C#, C/C++, Shell Scripting, TypeScript, SQL, JavaScript, Git, Unix, Linux, Jupyter  
 Libraries: NumPy, Pandas, Plotly, Matplotlib, H5PY, TensorFlow, Scikit-Image, Mocha, Jest, Sinon, Dask  
 Languages: English (Fluent), Spanish (Fluent), Russian (A1)

#### ACTIVITIES

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**Kappa Mu Epsilon Math Honors Society**  
*Illinois Zeta Chapter Math Honors Society*

Feb 2024 — Present

- Completed three semesters of college coursework with a strong academic record.
- Ranked in the upper 35% of academic standing, demonstrating dedication to excellence.
- Membership in Kappa Mu Epsilon (KME) to contribute to a vibrant community of mathematical scholars.

#### AWARDS

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**Dean's List** — *Dominican University*

Spring 2024

Distinction for attaining a grade point average of 3.80 on 12 or more graded hours.

**Dean's List** — *Columbia College Chicago*

Fall 2022

Distinction for attaining a grade point average of 3.75 on 12 or more graded hours.

**Dean's List** — *Columbia College Chicago*

Fall 2021

Distinction for attaining a grade point average of 3.75 on 12 or more graded hours.

**Keep Moving Forward Scholarship Recipient** — *Keep Moving Forward*

Fall 2021

Distinction for attaining a grade point average of 3.75 on 12 or more graded hours.

#### PERSONAL & RECREATIONAL INTERESTS

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Originally from Cicero, IL. I enjoy scuba diving (NAUI Open Water Certified), weightlifting, endurance and strength training, rucking, hiking, swimming, photography, and personal engineering projects.