

# Matías Berríos

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## EDUCATION

### Pontificia Unviersidad Católica de Chile

March 2020 – December 2023 (Expected)

*Bachelor of Science in Software Engineering, Minor in Data Science*

*Santiago, Chile*

- 4.0/4.0 GPA - Enrolled Top 1% Class of 2023 (5.166 Students).
- Top 10 Nationwide Score (Out of 264,629 Students) - PSU University Admissions Test (SAT Equivalent).
- Full Score in Mathematics Admissions Test (850/850 Points) - Achieved by only 89 Students out of 264,629 Nationwide.
- Freshman Dean's List - Awarded "Matrícula de Honor" Honor Roll Scholarship.
- Awarded First Dean's Academic Scholarship (Monseñor Joaquín Larraín Gandarillas Scholarship).

## EXPERIENCE

### Undergraduate Research Assistant

June 2022 – Present

*Professor Rolando Dunner, PhD, PUC Chile*

*Santiago, Chile*

- Utilized Digital Image Data Scanning Software to aid in processing large amounts of UAV Drone land survey and GPS information, in order to produce a highly precise Georeferenced Dense Point Cloud, consisting of 800 million individual points, with less than 4 inch deviation per point coordinate.
- Developed a Geo-coded 3D Model of Startovolcano *Cerro Toco* Cosmic Microwave Background Observations site located in Chajñator Science Preserve, covering a surface area of ~100 acres.
- Contributing to the testing phase of a Photogrammetry based Metrology System for Drone Alignment and CMB measurements.

### Teaching Assistant

March 2022 – June 2022

*Pontificia Universidad Católica de Chile*

*Santiago, Chile*

- Reviewed and corrected Python coding assignments prior to their official release to a class of over 900 students aiming to ease student work.
- Supervised and participated in weekly instances of content examination (Office hours), alongside troubleshooting of various coding assignment questions brought by groups of up to 40 students, in an effort to help students achieve a better understanding of basic coding concepts.

## PROJECTS

### DriveApp | Ruby, Rails, PostgreSQL, JavaScript, OpenStreetMap API

March 2022 – July 2022

- Built a Web Application using Ruby on Rails and PostgreSQL alongside two CS Majors.
- Implemented OpenStreetMap API, optimizing carpooling routes between members of the university, in an effort to provide an alternative to public transport during the COVID-19 pandemic, and minimize commuting times.
- Utilized GitHub data to facilitate collaboration and task distribution.

### Turn-Based Multiplayer Board Game | Javascript, React, NodeJS, Koajs

March 2022 – July 2022

- Collaborated in the development of a turn-based web game using a React front end.
- Built a back end utilizing Koajs framework, enabling multiple, simultaneous games between up to 4 players.

### DCCPlace | Python, Telegram API, Matplotlib, Numpy

November 2022 - Present

- Employed the Telegram API and Telegram bot framework to achieve a seamless, Python-based emulation of Reddit's "/r/place" event, through Telegram user interactions with DCCPlace bot, aimed towards PUC's Computer Science Student community.
- Correctly supported and responded to ~5000 user messages within <2 days of public release.

## TECHNICAL SKILLS

**Languages:** JavaScript (ES6), Python, Ruby, PHP, HTML/CSS, R.

**Frameworks:** React, Node.js, Express, Koajs, React Native, Rails, Selenium.

**Technologies:** pandas, NumPy, Matplotlib, openCV, SQL, git, Agisoft Metashape.

## ADDITIONAL INFORMATION AND INTERESTS

University Rugby Player; Open Source Student Club Member; Cybersecurity Club Member; Contemporary Music and Visual Arts devotee; Health and Well Being; Fitness and Sports Performance.