

# Thomas Cintra

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## EDUCATION

### HARVEY MUDD COLLEGE

#### BS IN MATHEMATICS & PHYSICS

Dean's List

Cum. GPA: 3.8 (High Honors)

May 2022 | Claremont, CA

### ST. FRANCIS COLLEGE (HS)

#### IB DIPLOMA

IB Score: 41

HL: Math, Physics, English

May 2018 | São Paulo, Brazil

## LINKS

Github:// Tcintra

LinkedIn:// thomascintra

Personal Website:// tncintra.com

## COURSEWORK

### MATHEMATICS

Abstract Algebra

Differential Equations

Multivariable Calculus

Discrete Math

Linear Algebra (Grader)

### PHYSICS

Quantum Mechanics

Electromagnetism

Mechanics (Grader/Tutor)

Special Relativity (Grader)

### COMP. SCI.

Intro. to CS (Grader/Tutor)

Principles of CS

Data structures and Program

Development

## SKILLS

### PROGRAMMING LANGS.

Proficient

Java • JavaScript • Python

Familiar

C++ • CSS • HTML • Racket • Typescript

### PROGRAMMING TOOLS

Git • Angular • Maven • App Engine

Cron • Google Datastore API •

Materialize.css •  $\LaTeX$  • HTTPServlets •

Pandas • scikit-learn

Fluent in English, Portuguese, and Spanish

## EXPERIENCE

### GOOGLE/ALPHABET | STEP INTERN

May 2020 - August 2020 | MTV, CA

- Designed and developed a Covid-19 relief web application for colleges opening in the Fall.
- Wrote design docs and database schemas.
- Implemented a cafeteria scheduler that optimized meal times for students given their class schedules and preferences, enabling students to socially distance within dining halls.
- Developed an events feature for students to create, modify, and RSVP to on campus events. Using the App Engine datastore API, HTTPSessions, and Cron.yaml, crafted a database to store event and student data, which was central to the website's contact tracing feature.
- Full stack development - Javascript, HTML, and Materialize.css for the front end, Java servlets for the back end. Link to GitHub [repo](#).
- URL: covidiena.com.

### HARVEY MUDD COLLEGE | RESEARCH FELLOW

May 2019 - Aug 2019 | Claremont, CA

- Research and development of machine learning coursework for CSCI181R - Data Science and Ethics. This is an introductory ML course with a focus on the assessment of bias and discrimination in self-learning algorithms.
- Created assignments and projects, including: an introduction to relevant ML Python modules, analyzing Random Forest & Logistic Regression models, and using different performance metrics to assess and visualize algorithmic discrimination.
- Guided students through homeworks and projects to understand the risks of black box systems and how to uncover important hidden biases.
- **Tech Stack:** scikit-learn, Pandas, Numpy, Seaborn, Matplotlib.
- **Links:** Poster, Repos.

### HARVEY MUDD COLLEGE | GRADER AND TUTOR

Jan. 2019 - Present | Claremont, CA

- Tutored students in CSCI005 - Intro to CS, and PHYS024 - Mechanics.
- Graded for CSCI005, PHYS024, PHYS023 - Special Relativity, and MATH073 - Linear Algebra

## PROJECTS AND LEADERSHIP

### 5C HACKATHON | LEAD PROMPT DEVELOPER, INCOMING: PRESIDENT

August 2019 - Present | Claremont, CA

- Developed prompts for the Claremont colleges' 2020 Hackathon.
- Managed relationship with our Platinum sponsor: Proofpoint.
- Note: The Claremont Colleges indefinitely postponed our Spring 2020 event due to the Covid-19 pandemic.

### JOURNEY TO SPACE | STRUCTURES & AERODYNAMICS TEAM

August 2019 - December 2019 | Claremont, CA

- Developed and tested a predictive model for the thrust curve of our student built Loki dart. Using RockSim and MatLab, projected the overall trajectory of the rocket based upon weight, shape, and fuel grade to optimize distance travelled.