




# Odaiclet Marina Piccinini

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## Education

**UC Berkeley** BA in Cognitive Science with Minor in Data Science

**GPA:** 3.50

**Expected June 2022**

**Honors Societies:** Alpha Gamma Sigma & Phi Theta Kappa

**Relevant Coursework:** Discrete Math, Statistics, Linear Algebra, Calculus, Differential Equations, Matlab, C++, Python, Research Methods, Computational Models of Cognition

## Work Experience

**Research Assistant** | National Science Foundation & Northern Arizona University

**June 2020 – Aug 2020**

- Received grant from the National Science Foundation to conduct astrophysics research
- Analyzed sky survey data from ATLAS and ZTF telescopes, leading to the detection of 7000+ asteroids
- Communicated results through data visualization, presentations, and reports

**Lead Tutor** | College of Marin

**Jan 2017 – May 2020**

- Designed transition guides that helped train 50+ staff members on remote meeting software (Zoom) amidst COVID-19 pandemic
- Provided 50+ hours of individualized tutoring to students in Mathematics including calculus, linear algebra, and statistics, as well as English, Spanish, and ESL courses

## Projects

**Modeling the Shape of Asteroid 2015 KZ120** | [Analysis](#)

- Developed a mathematical model using data query that derives rotational periods, light curves, and colors of 40+ asteroids used sky survey data from ATLAS and ZTF telescopes
- Derived a previously-unknown rotational period and shape of an asteroid using light curve inversion techniques
- Used python, collab notebooks and published algorithms for this work

**Index Fund Investment Portfolio Calculator** | [Analysis](#)

- Created a shiny app that calculates the total stock market of an index fund to track the future performance of the initial investment
- Used R, diverse shiny gadgets, and future value calculations assuming a normal distribution to illustrate the flow of an investment assuming annual or monthly contributions

**Hurricane Pattern Validation** | [Analysis](#)

- Applied exploratory data analysis and data visualization in R to understand hurricane patterns
- Results illustrated a greater frequency of hurricanes than initially proposed

**Trends of Population, Poverty, Fertility and Child Mortality** | [Analysis](#)

- Used python and Jupyter notebooks to analyze and visualize the relationship between highlight trends in worldwide population growth and poverty over time
- Used data and inferential statistics to measure the relationship between fertility rates and child mortality across continents
- Results indicate that environmental factors influence population growth and extreme poverty has increased in the United States while decreasing in China

## Community Engagement & Awards

**President** | Alpha Gamma Sigma Honor Society of College of Marin (AGS)

**Fall 2019 – Spring 2020**

- Led weekly board meetings, fundraising events, and volunteering activities for 70+ members
- Worked with Treasurer to create budget and fundraised \$6000+ for the club

**President/Co-Founder** | Women in Tech Club of College of Marin (WIT)

**Fall 2018 – Spring 2020**

- Founded in response to lack of diversity and inclusion within university's computer science community
- Led weekly board meetings (1 hour) with 7 board members and 1 advisor via Slack
- Facilitated information about local internships opportunities, guest talks, and hackathon's for all members

**Introduction to Physics, College of Marin** | Guest Speaker

**October 2020**

- Facilitated an introduction to astrophysics lecture and shared research findings to a class of 20+ students

## Skills

**Programming Languages:** Python, R, Matlab, C++

**Tools:** Jupyter Notebook, RStudio, Google Colab, Matlab, Xcode

**Spoken Languages:** English (near native), Spanish (native)

**Citizenships:** United States (permanent resident), Venezuela (citizen)