

# Tom Butler

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## EDUCATION

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### Occidental College

Los Angeles, CA

*Bachelor of Arts in Mathematics and Kinesiology: Cumulative GPA: 3.47/4.00*

*Aug. 2016 – May 2021*

- Mathematics Major GPA: **3.85/4.00**, Kinesiology Major GPA: **3.46/4.00**
- Focus of Studies: Applied and Computational Mathematics, Biomechanics
- Awards: Deans List (2017-2021), Kinesiology Department Ambassador

## EXPERIENCE

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### Operations Research Intern

January 2021 – May 2021

*SportsID Inc.*

*Atlanta, GA*

- Interact and communicate closely with operations research and executive team to be successful in a startup environment.
- Duties include business operations research, product development and data analysis.

### Mathematics Teaching Assistant and Grader

August 2020 – May 2021

*Occidental College*

*Los Angeles, CA*

- Assisted in managing and grading homework assignments for the linear algebra and partial differential equations courses at Occidental College.
- Worked directly with the professor and students to ensure curriculum was being delivered efficiently.

### Merchandiser

July 2020 – September 2020

*Total Wine & More*

*Pasadena, CA*

- Duties included day to day inventory management and front of store customer service.
- Assisted in sales and online order management for more than \$500,000 in weekly revenue.

### Human Anatomy & Biomechanics Tutor

August 2018 – May 2020

*Scientific Scholars Achievement Program*

*Los Angeles, CA*

- Designed worksheets and study plans for students in the Occidental College kinesiology courses, including human anatomy and biomechanics.
- Set up private meetings with students to provide one-on-one help to ensure curriculum was understood sufficiently.

### Clinical Intern

August 2018 – December 2018

*Glendale Adventist Health*

*Glendale, CA*

- Worked closely with staff physicians in day to day operation, including patient appointments and facility upkeep.
- Documented and analyzed pathology on case to case basis.

## UNDERGRADUATE RESEARCH PROJECTS | *Full portfolio can be viewed on Github page linked above*

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### “Optimized Conversion of Categorical and Numerical Features in Machine Learning Models”

- Preparation for Industrial Careers in Mathematics sponsored research semester, partnered with Adobe Research.
- Developed machine learning models for data sets ranging from 32,000 to 40,000,000 rows.
- Python based code, utilized pandas, NumPy, Matplotlib, Scikitlearn and TensorFlow libraries.
- Evaluated performance on how numerical and categorical values were handled by each model.

## TECHNICAL SKILLS

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**Languages:** Java, Python, R, HTML, CSS, Javascript

**Python Libraries:** pandas, NumPy, Matplotlib, Scikitlearn

**Productivity Programs:** Microsoft Office, PyCharm, IntelliJ, VS Code, LaTeX

## LEADERSHIP AND ACTIVITIES

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**NCAA Athlete and Coach:** Occidental College Varsity Baseball (2016-2020), Team Captain (2019-2020), Assistant Pitching Coach (2020-2021)