

# James Merges

Davis, CA

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<https://github.com/jmerges>

## Work Experience

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### **Tutor**

Penji - Davis, CA

December 2018 to June 2019

I tutored UC Davis students in math and physics for Penji, which used an app to set up appointments.

### **Physics Reader**

University of California - Davis Physics Department

January 2018 to March 2019

As a physics reader I organized, scanned and uploaded quizzes taken by undergraduate students for their professors. I was in charge of promptly responding to emails, dealing with the quizzes, and assisting in various tasks to help physics professors.

### **Undergraduate Researcher for Nuclear Physics Group at UCD**

NPG - Davis, CA

June 2017 to September 2017

- Using ROOT(<https://root.cern.ch/>), a data-analysis framework in C++, I helped code algorithms to analyze data collected from the Relativistic Heavy Ion Collider (RHIC). My task was to analyze data for multi-hadronic particles, and produce graphs to represent the particle spectra.
- In addition to the data analysis, I coded a Monte-Carlo Simulation of a gold beam and gold beam collision within the RHIC. Using my simulated data, I constructed plots and compared my simulated data to real data collected from the super collider. I tested the input parameters against a sample using a  $\chi^2$  goodness of fit test to optimize my simulation.

## Education

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### **Bachelor's in Applied Physics - Computational Analysis**

University of California-Davis - Davis, CA

September 2016 to June 2020

## Skills

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- Organizational Skills
- Research
- Teaching

- Microsoft Powerpoint
- MATLAB
- Python
- Data Analysis
- C/C++
- Laboratory Experience
- Leadership Experience
- Tutoring
- JavaScript
- GitHub
- Git
- Linux

## Links

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<https://jmerges.github.io/Portfolio/>

[https://michaelanthonyyy.github.io/project\\_one/](https://michaelanthonyyy.github.io/project_one/)