David A. James

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Education

University of California: Los Angeles, 2019
Degrees: B.S. Mathematics of Computation
Hermanos Unidos; Triangle Fraternity for Engineers, Architects, and Scientists

College of the Canyons
Degrees: Associates in Mathematics, Assosciates in Physics

Skills

Programming: C++, Python, JAVA LaTeX, Matlab
Applied Maths: Mathematical Modeling, Numerical Analysis, Optimization
Other: Tutoring, Project Management, Staff Management, Public Speaking, Soldering, Milling, Machining, Lab experience, Microsoft Office

Relevant Coursework

Math 142: Mathematical Modeling
Math 164: Optimization
EPS SCI 136: Applied Geophysics
Physics 105: Mechanics
Physics 110: Electricity and Magnetism
CS 31: Computer Science I
CS 32: Computer Science II

Research Experience

DataFest 2017
Title: Data Analysis May 2017
Project: Team developed a machine learning algorithm to determine purchase pattern of algorithms
- Extracted data, so that team can work with smaller sets
- Analyzed data via matrices to confirm machine algorithm was accurate
- Created presentation to present results to audience and judges

NASA High Altitude Student Platform: Electrostatic Cosmic Dust Collector [ECDC]
Title: Systems Engineer Fall 2016 - Fall 2017
Project: Team developed an optimized device to place on the HASP to collect particles from celestial showers.
- Researched corona discharge to optimize the electrostatic dust collection

NASA High Altitude Student Platform: Electrostatic Cosmic Dust Collector [ECDC]
Title: Systems Engineer Fall 2015 - Fall 2016
Project: Team developed a device to place on the HASP to collect particles from celestial showers.
- Modelled systems and possible scenarios the ECDC will go through during flight, so that the team would know design requirements

College of the Canyons Fair: Sonoluminescence
Title: Researcher and Analyst Fall 2013 - Spring 2014
Project: Team constructed an apparatus to display the sonoluminescence phenomena.
- Researched sonoluminescence
- Constructed the apparatus by soldering a circuit together

Work Experience

College of the Canyons September 2014 - June 2016
Title: MESA Tutor/ Workshop Facilitator/ Math and Science Tutor
- Assisted students in mathematical or scientific homework or questions
- Lead Academic Excellence Workshops in the MESA Center

Gentle Ride Ambulance May 2014 - Decemeber 2014
Title: EMT-B
- Patient care such as vitals, assessments, medical interventions
- Giving and taking medical history reports

Papa John's Pizza May 2013 - April 2014
Title: Assistant Manager
- Took orders and ran register in the store
- Surveyed systems at other businesses
- Closing the restaurant and stock counting

High Pressure Technologies LLC May 2011 - July 2011
Title: Machine Shop Intern
- Assisted machinist with pressure system repair
- Surveyed systems at other businesses
- Learned machining and workshop environment

Leadership Experience

UCLA CalGeo
Community Service Chair Fall 2017-Spring 2018
- Planned community service events
- Planned public outreach events

Astronomy and Physics Club
President Fall 2015-Spring 2018
- Started and manged club events
- Wrote budget proposals

Clubs/ Interests

California Geotechnical Engineering Association [CalGeo]
BruinSpace
Society of Physics Students [SPS]
American Physical Society [APS]
American Chemical Society [ACS]
Mathematics, Engineering, Science Achievment [MESA]
Salsa Club