David A. James

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Education

University of California: Los Angeles, 2019
Degrees: B.S. Mathematics of Computation with a Minor in Geophysics and Planetary Physics
Organizations: Hermanos Unidos; Triangle Fraternity for Engineers, Architects, and Scientists

College of the Canyons GPA 3.55
Degrees: Associates in Mathematics, Assosciates in Physics

Skills

Programming: C/C++, Python, LaTeX, Matlab, JavaScript
Applied Maths: Mathematical Modeling, Numerical Methods, Optimization, Algorithms
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

Project Experience

Rapid: Blue Dawn CubeSat Mission – http://bruinspace.com/projects/rapid.html
Title: Assembly, Integration, & Testing Engineer June 2018 - Present
Project: Team is working on developing a CubeSat that will be launching on Blue Origin's New Shepard rocket

- Write assembly, safe-to-mate, and functional procedures
- Test procedures for errors and accuracy on design
- Test magneto-hydrodynamic pump extensively to ensure design was safe to fly

Idea Hacks 2019 – https://github.com/DJ-2805/muscleBot
Title: Data Analyst January 2019
Project: Team designed RC Car that moved based off of hand motion and muscle detection

- Calibrated muscle sensor to recognize EM pulses to turn on/off RC Car
- Calibrated hand motion, so that accleration data would move the car in correct motion
- Assisted in circuit design of RC Car and hookup of hardware to devices

LA Hacks 2018 – https://github.com/ryanmjacobs/4sk8
Title: Full Stack Developer March 2018
Project: Team developed an Arduino compass hooked up to a skateboard that would receive heading from external website

- Designed back end of the website using JavaScript, so that Arduino received GPS coordinates
- Designed simple front-end for the website using HTML, so that user could input destination
- Assisted team members with design, so that it would gather data, and output an accurate heading

Work Experience

UCLA: Institute of Transportation Studies June 2018 - Present
Title: IT Assistant

- Built computers for the ITS Department
- Setup network and connections along with cleaning machines for Lewis Department
- Help maintain web servers
- Troubleshoot any technical problems or tasks that arise within the department

College of the Canyons: MESA Center September 2014 - Present
Title: MESA Tutor/ Workshop Facilitator/ Math and Science Tutor

- Assisted students in STEM homework and answered questions pertaining to theory they studied
- Lead Academic Excellence Workshops in the MESA Center
- Physics Academic Workshop showed a GPA increase of 0.2 with my students and an average of 1 letter grade increase over other students

High Pressure Technologies LLC May 2011 - July 2011
Title: Machine Shop Intern

- Assisted machinist with pressure system repair
- Tested pressure systems at external locations to ensure safety and upkeep
- Machined fittings for pressure systems

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]
Muay Thai
Salsa Club