# Andrew C. Pepper

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## OBJECTIVE

*I am a researcher with software development experience. My curiosity is what drives me to learn new technologies. I'm looking for a job where I can help make the world a more hospitable place for all life. In my free time I enjoy music, art, and rock climbing.*

## EDUCATION

**Bachelors of Science in Physics, Bachelors of Science in Mathematics**     September, 2020
*University of California, Davis*     GPA: 3.4
- Herbert and Gladys Smith scholarship
- Dean's Honor list

**Relevant Courses**

| | | |
|---|---|---|
| Algorithm Design | Data Structures | Mathematical Physics |
| Numerical Analysis | Machine Learning | Classical Mechanics |
| Optimization | Computational Physics | Thermal and Statistical Physics |

## EXPERIENCE

**Software Engineer, Backend**     Jun 2021 - Feb 2022
*Eyerate*     *Elk Grove, CA*
- Designed and updated database schema for a MongoDB cluster.
- Monitored and maintained integrations with over 30 3rd-party APIs.
- Implemented features/functions in ReactJS frontend and ExpressJS backend.

**Research Assistant (Mentor: S. T. Stewart)**     Nov 2017 - Aug 2020
*University of California, Davis*     *Davis, CA*
- Utilized a shared computer cluster to simulate and analyze complex data.
- Programmed and benchmarked a custom integration between two open source projects.
- Presented research at the 50th Lunar and Planetary Science Conference.

**Undergraduate Researcher (Mentor: G. Sarid)**     Feb 2017 - Aug 2017
*University of Central Florida,*     *Orlando, FL*
- Researched modern algorithms that improve the Smoothed Particle Hydrodynamics method.
- Modified complex algorithm implementation to improve its resolution.
- Presented research at the University of Central Florida's Showcase of Undergraduate Research Excellence Conference.

**Grader for Undergraduate Physics classes**     Jan 2017 - Jun 2017
*University of Central Florida, Physics Department*     *Orlando, FL*
- Reviewed and graded exams for ~300 students.
- Delivered feedback on weekly homework assignments.
- Reported aggregate performance to instructors for course planning purposes.

## SKILLS

**Programming Languages**
- Python (and Cython)
- Javascript (and Typescript)
- C, C++
- MATLAB
- LaTeX

**Tasks**
- Algorithm implementation
- AWS EC2 and Lambda deployment/management
- Git repo management (rebasing, cherry–picking, restoring commits etc.)
- Workflow automation via scripting (mostly in Bash)

## LEADERSHIP

**President and Founder of Origami Club**     Jan 2018 - May 2018
- Presented short lectures to promote interest in the club.
- Organized group projects and meetings (see on Facebook).

**Band Manager and Member**     Oct 2018 - Now
- Schedule shows and studio time.
- Learn and write new songs on my instrument.