Adam Abbas, Scientific Software Developer

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New York City, United States

PROFILE

Scientific Software Developer with 4+ years of experience in developing efficient workflows, testing infrastructure, and versatile software solutions. Passionate about leveraging a strong background in both Computer and Physical Sciences to contribute to impactful, interdisciplinary projects. Adept at collaborating with teams from all backgrounds to drive innovation.

EMPLOYMENT HISTORY
Aug 2022 -   Present

Scientific Software Developer, Schrodinger Inc.

- Optimized user workflows for molecular dynamics simulations, streamlining processes and boosting productivity for drug discovery research
- Redesigned and deployed new system testing infrastructure, making tests easier to create, maintain, and debug.
- Collaborated with scientists to productize cutting-edge scientific software
- Worked extensively on improving simulation data outputs, primarily using networkx graph objects
- Led a cross-functional project with the Documentation team to revamp the molecular dynamics product's User Manual — improving user experience and accessibility.

Jun 2019 - Jun 2022

Project Systems Engineering Intern, NASA Jet Propulsion Laboratory

- Worked on the Psyche mission, on the Verification and Validation team
- Developed a custom set of software tools to facilitate the management of over 20,000 test entries and their upload to the project database
- Partnered with project leads to streamline spacecraft telemetry testing processes, and improve efficiency in the Verification and Validation procedures.

Apr 2020 - Jun 2022

Undergraduate Researcher, Falson Group

- Played a key role in establishing a new thin film growth lab
- Conducted in-depth study on Yttrium Oxide growth for quantum computing applications
- Spearheaded digital infrastructure development, creating custom software and protocols for lab equipment and enhancing operational efficiency

Feb 2016 - Apr 2020

Co-Founder/Director of Programming, Kinet-X

- Developed innovative STEM curricula, addressing educational disparities and reaching over 1,000 NYC students through engaging workshops and programs
- Taught web development, data science, and robotics courses; significantly expanded STEM education access for underserved communities and garnered recognition from the Wall Street Journal
- Fostered partnerships with local schools and organizations, creating a network of STEM education opportunities

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EDUCATION
Sep 2018 - Jun 2022

B.S. in Materials Science, California Institute of Technology   Pasadena

- Relevant coursework includes Computational and Numerical Methods, Condensed Matter Physics, Mechanics, Thermodynamics, and Software Design
- Served as Social Director and President of Blacker House, Peer Advocate, and a student representative to the Board of Trustees
- Served as a Computer Science TA for 3 years, two of which as Head TA. Held weekly office hours, lab sessions, and contributed to class lectures and course material.

SKILLS

Software Design	Test Automation
Interpersonal Communication	Collaboration
Curriculum Design	Debugging
Technical Writing	Cross-Functional Leadership
Scientific Computing	

AWARDS

CE Week's Top 10 Under 20

For being a young innovator in technology, presented at CE week 2016

Donald S. Clark Memorial Prize (Caltech)

For outstanding leadership and academic excellence

Robart L. Noland Leadership Award (Caltech)