Postdoctoral Researcher in Programmable Active Materials

Job Description:

We are currently seeking a highly motivated and skilled Postdoctoral Researcher with a strong interest in programmable active materials to join Prof. Lulu Qian's lab at the California Institute of Technology in Pasadena, California. The successful candidate will have a passion for cutting-edge research and a desire to contribute to groundbreaking advancements in the field.

Key Responsibilities:

1. Conduct research in programmable active materials, with a focus on soft materials with memory and pattern recognition capabilities.
2. Utilize and customize fluorescence microscopy and pattern illumination systems.
3. Develop DNA crosslinked hydrogels with embedded strand displacement circuits.
4. Interact with group members to brainstorm, critique, and refine research ideas and methodologies.
5. Communicate research findings through presentations, publications, and conferences.

Required Qualifications:

- Ph.D. in a relevant field (e.g., materials science, bioengineering, or related discipline).
- Prior research experience in DNA crosslinked hydrogels and photopatterning.
- Proficiency in fluorescence microscopy and digital micromirror devices.
- Strong analytical, quantitative, and problem-solving skills.
- Excellent written and oral communication abilities.
- Passion for programming and systematic approaches.

Preferred Qualifications:

- Experience with chemical reaction networks and strand displacement circuits.
- Demonstrated ability to think creatively and challenge conventional wisdom.
- Strong sense of logic and quantitative reasoning.
- Enthusiasm for hands-on experimentation and translating ideas into reality.
- Persistence and determination to see projects through to completion.

Our Commitment:

We are dedicated to providing a stimulating and supportive environment that fosters the growth and development of extraordinary, independent scientists. Our group values intellectual curiosity, engaged discussions, and constructive feedback. We are committed to making your research journey an enjoyable and fulfilling adventure and will provide close mentorship and thoughtful guidance from an engaged advisor.

Join our group and contribute to pioneering research in programmable active materials. Apply today to embark on a challenging and rewarding intellectual journey.

To apply, please submit your CV, a cover letter detailing your research interests and qualifications, and contact information for three references to Lulu Qian (luluqian@caltech.edu).