

Software Engineer Summer Internship

Our Lab: The Zhang Group at Rutgers University Newark is a Biomolecular-nanomaterials chemistry research lab, that specializes in DNA and RNA nanostructures and nanodevices. Our research field has gained a lot of momentum across the world in the past decade. Most notable applications of DNA and RNA nanostructures include drug delivery, biosensors, bioimaging, nanorobots, and nanocomputers. Our group hopes to continue to contribute to this field and explore the possibilities of what DNA and RNA can become.

Group website: <https://www.feizhang-lab.com/>

Job title: Software Engineer Summer Intern

We are looking for a software engineer that can help us to modernize a C++ program used to design our DNA and RNA structures. We rely heavily on this software to design nanostructure in 3D. We're looking for a hardworking, team-oriented engineer that will temporarily become part of our research group. At the end of the internship period, we are hoping to distribute the new program for others in our field to use and possibly write an academic manuscript.

What you'll do:

- Fix and/or update the designing software
- Participate in bi-weekly group meetings presenting on current and future progress
- Collaborate with a current group member
- If applicable, co-write an academic paper by the end of the internship

This is a paid internship opportunity which is sponsored by NSF. We will talk to applicants and select 1-2 students for this opportunity.

Please Email your CV to Dr. Zhang at fei.zhang@rutgers.edu to apply for the summer internship. The deadline for application is April 30th.

Qualifications:

Minimum Qualifications:

- A current student pursuing a bachelor's degree from an accredited institution either planning to graduate in the year 2023 or 2024.
- At least 1 year experience with C++
- Works well in team environments
- Available from June 2022 – August 2022

Preferred Qualifications:

- Experience with:
 - Microsoft Foundation Classes (MFC)
 - OpenGL 1.0 and later versions
- Debugging complex programs
- Has personal projects in C++

- Previous Chemistry knowledge (Specifically biochemistry)
- Previous Biology knowledge (Specifically DNA and RNA)

Other Information:

- The current program uses outdated libraries such as OpenGL 1.0.
- A PC will be provided if needed, along with a shared desk space
- Although remote work is allowed, in-person attendance to group meetings and other meetings is required. If working remote is not allowing adequate progress, in-person work might be encouraged/required

Location

- 73 Warren Street, Newark NJ; Olson Hall