

# Claire Chou

[cchou23@jhu.edu](mailto:cchou23@jhu.edu) | (914) 233-7460 | Baltimore, MD | [clairechou.com](http://clairechou.com)

## EDUCATION

**Johns Hopkins University** | Baltimore, MD

**BS in Chemical and Biomolecular Engineering & Computer Science**, Dean's List

Expected Graduation: May 2027

- **GPA:** 3.95/4.0
- **Relevant Coursework:** Chemical and Biological Process Analysis, Organic Chemistry, Physics, Data Structures and Algorithms, Python, Java, Multivariable Calculus, Linear Algebra and Differential Equations

## WORK EXPERIENCE

**Johns Hopkins University, Bevan Lab** – Research Intern

Baltimore, MD

Nov 2024 – Present

- Conducted research on the interactions, dynamics, and structures of colloidal and macromolecular systems, applying principles of chemical engineering and materials science.
- Utilized TIRM to precisely measure colloidal interactions, employing MATLAB for quantitative data analysis and visualization to support hypotheses.
- Investigated the transport and environmental interactions of colloidal particles in porous media with perfluorooctanoic acid.

**Johns Hopkins University, Gateway Python** – Course Assistant

Baltimore, MD

Aug 2024 – Present

- Improved 50+ students' coding skills through practical instruction, contributing to their success in programming fundamentals, including data structures, algorithms, and object-oriented programming.
- Provided individualized support during office hours, clarifying complex Python concepts and debugging code, demonstrating ability to communicate complex technical information.
- Contributed to the administration and grading of assessments, exhibiting strong attention to detail and assessment of coding capabilities.

**Columbia University Irving Medical Center, Kiryluk Lab** – Research Intern

New York, NY

May 2023 – Aug 2023

- Investigated the relationship between genetic predisposition and urinary tract infections through 45+ wet lab experiments, contributing to biological research relevant to human health.
- Synthesized findings from 15+ peer-reviewed publications and DNA databases to identify key genes associated with UTIs.
- Performed statistical analyses (Chi-Squared and T-tests) using R, Jupyter Notebook, and Excel to validate and support research findings.

**Pace University, Dyson Lab** – Research Intern

Pleasantville, NY

Jun 2020 - Apr 2023

- Studied the impact of hunting on bison populations by analyzing over 2,000 vocal formants, identifying significant long-term negative effects.
- Created Praat automation scripts to process large datasets 50% faster, significantly improving analysis efficiency.
- Authored a paper describing research and results for submission to scientific symposia, demonstrating written communication and scientific reporting skills.

## EXTRACURRICULARS AND AWARDS

- American Red Cross | Youth Advisory Board Representative — Attended national conferences, organized blood drives and fundraisers; volunteered at local soup kitchens.
- Federated Conservationists of Westchester | Board Member — Hosted environmental events with over 100 attendees, tabled at local fairs, created graphics for social media and webpage.
- Weinberg Nature Center | Project Head — Led projects removing invasive species and protecting of native life.

**Awards:** 2nd Place at NYS Junior Science and Humanities Symposium, National Merit Finalist, PF Debate Finalist

## SKILLS & INTERESTS

- **Laboratory Techniques:** PCRs, Microscopy, ELISA Assays, Western Blots, RNAScope, Pipetting, Titrations
- **Programming Languages:** MATLAB, C/C++, Python, Java, HTML, CSS, JavaScript
- **Data Analysis and Professional Skills:** Microsoft Excel, Literature Analysis, Mentoring, Statistics
- **Interests:** Crosswords, pottery, knitting, painting, volleyball, cooking