

Hyelin Choi

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EDUCATION

Fall 2018 - Spring 2022

B.A. in Molecular Cellular and Developmental Biology | University of Colorado Boulder
Minor: Creative Technology and Design at ATLAS Institute, College of Engineering

PROFESSIONAL EXPERIENCE

Fall 2021 - Present

Undergraduate Researcher | University of Colorado Boulder | Living Matter Lab
EnrichSeq, using computation (Excel, MATLAB, Python) to explore new phage discoveries. Amplified mixture of phages and observed absorbance against bacteria following qPCR. Sequenced and analyzed to validate the most virulent phage. Conducted primer design, PCR, plaque streak, and titer assay. Worked directly with a PhD student mentor (Dreycey Albin) to write a paper for independent study and to present a scientific poster. Inventing sustainable biomaterials, and researching their application, e.g., self-cleaning textiles, algae-based bioplastics, mycelium, and biodegradable clays. Refined formula for compost-based material, able to be 3D printed with embedded microfluidic channels. Created medium, measured luminance of culture, and allocated bacteria culture to amplify. Assisted with the bioluminescence exhibition at the Museum of Boulder.

Fall 2021 - Present

Teaching Assistant | University of Colorado Boulder | MCDB 1171
Managed proper lab documentation/excel programming and effectively taught technical procedures including micropipette, allocation, and serial dilutions.

Summer 2021 - Present

Lab Assistant | TriCore Reference Laboratory | Albuquerque, NM
Manage clinical trial network to maintain a large body of tissue & specimens collected for research made available to investigators. Regulate database to identify and store specimens (SMRT and Freezerworks). Identified and labeled positive samples of requested viruses for NM Department of Health. Certified and Performed allocations and packaging/shipping of invasive species (i.e. positive COVID specimen). Collaborated with biorepository supervisor to improve data analysis efficiency through excel shortcuts for specimen intake bench.

Spring 2021

UX/UI Designer | Betancourt Media | Guac Group
Collaborated on a team project to create user-friendly and appealing website for Betancourt Media company; film, television, and advertisement production. Designed user interface, style guide, high-fidelity prototype, a website providing a solution for the company to receive more clients. Tested and implemented UX strategies and created actionable and intuitive design flows through Human-Centered Design.

Spring 2020 - Fall 2020

Lab Technician | Office of Information Technology | University of Colorado Boulder
Documented resolved processes to mitigate repeat issues and shared resolutions to a cross-functional team. Organized and maintained software and hardware set up and testing on over 20 enterprise lab computers at the University of Colorado.

PUBLICATION

- Pending* Fiona Bell, Netta Ofer, **Hyelin Choi**, and Mirela Alistar. 2022. Biomaterial Playground: Demonstrating the Interactive Possibilities of Biomaterials. In Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI'22). Association for Computing Machinery, New York, NY, USA, 1 - 12. (Submitted).
- Pending* Fiona Bell, **Hyelin Choi**. 2022. The Slowness of Being Alive: Interacting with SCOBY at a Daily Pace. In Proceedings of the 2022 ACM SIGCHI Conference on Designing Interactive Systems (DIS). (Submitted).

AWARDS AND HONORS

- Spring/Fall 2021* **Dean's List** | University of Colorado Boulder
Term GPA of (Spring 2021) 3.951 | (Fall 2021) 4.0
- Spring 2018* **Daniels Scholarship** | Daniels Fund
The Daniels Scholarship Program offers a full four-year college scholarship that provides financial and personal support. Daniels Scholars demonstrate exceptional character, leadership, and a commitment to serving their communities.

INVITED TALKS

- Fall 2021* **Medicinal Chemistry** | Guest Lecturer | MCDB 1171
Lecture was given as part of MCDB 1171 class on configuration change of opioid receptors. Difference between agonist and antagonist drug; analog drug and pharmacological significance.

ORGANIZATIONS

- Spring 2022* **Designing with Alganyl** | Workshop by Fiona Bell | Program Assistant & Participant
Hands-on exploration of biodegradable plastics. Designed program brochure and letter packages to mail samples of alganyl for virtual participation. Actively teach participants about sustainability and material-centered design methods. Creating completely biodegradable environment-sensing wearables.
- Fall 2021 - Present* **Mentee** | Colorado BioScience Association Mentor Program
The program builds connections in the Colorado science community. I was paired with Tim Schaewe, a former Medtronics Engineer, and have received support in professional development, hands-on site tours, and networking opportunities.
- Spring 2020 - Fall 2021* **Project Lead** | Design for America | UX Design
Collaborated with BOLD Center for Diversity and Inclusion at CU Boulder. I helped develop UX improvement on the submission platform for art and design works done by BOLD fellows.
- Spring 2020* **Event UX** | T9 Hackathon
T9 Hackathon is targeted to support women and marginalized students, I assisted in creating participant forms and online resources. I also participated in the Hackathon with Project *LiveAlert*, an emergency alert system to provide aid in rising cases of hate crimes.

- Spring 2019 - Spring 2020* **Scholar Ambassador** | Daniels Fund
Spearheaded monthly social events and collaborated with admission advisors, DF liaisons to help current scholars and future applicants—encouraging college applications.
- Fall 2018 - Present* **MCDB Mentors**
Outreach to lower classmen in MCDB by providing opportunities and mentorship through faculty talks, career panel, MCDB Boot Camp, and Been There Done That panel.
- Fall 2018 - Spring 2020* **Community Council** | Daniels Fund
Scholar outreach program to connect all the DF cohorts through social events and professional development such as retreats, career panels, volunteer scholarship application review, and Friendsgiving.

CERTIFICATIONS

- December 2021* Lab Safety and Hazardous Waste Generator Training | BioRAFT
- December 2021* General Biosafety Training | BioRAFT
- August 2021* Good Laboratory Practice (GLP) | CITI Program
- August 2021* Good Clinical Practice (GCP) | CITI Program
- August 2021* Group 1 Biomedical Research Investigator | CITI Program
- February 2021* Avocademy UX/UI Foundations | Avocademy

REFERENCES

Mirela Alistar | Assistant Professor at ATLAS Institute and the Department of Computer Science at CU Boulder | Lead at Living Matter Lab
<http://www.personallab.org/mirela.alistar@colorado.edu>

Pamela Harvey | Senior Instructor at MCDB at CU Boulder
Pamela.Harvey@Colorado.EDU

Elizabeth Smith | Technical Supervisor at Biorepository at TriCore Reference Laboratory
elizabeth.smith@tricore.org

MEDIA

- Fall 2021* **Living Matter Lab**
<https://www.instagram.com/livingmatterlab/>
<https://www.colorado.edu/atlas/living-matter-lab>
- Spring 2018* **Daniels Fund 2018 Class of Daniels Scholars**
<https://www.danielsfund.org/2018-4-2-2018-daniels-scholars-announced>