

Info

Phone

949-413-0675

Email

andyklego@gmail.com

Address

2530 Erwin Rd APT 162, Durham, NC, 27705

LinkedIn

[andy-kapoor-ak99](#)

Project Portfolio

andyk99.github.io/Portfolio/

Education

August 2024 - May 2026

Duke University: M.S.

**Materials Science and Engineering
& AI For Materials**

August 2021 - May 2024

Concordia University Irvine: B.S.

Major: **Biochemistry**

Minor: **Computer Science**

Expertise

- Scientific Software Development
- 3D Printing (mSLA, FDM)
- Linux, CLI, Bash, Shell, Python, C#, R
- Statistical Analysis and Tests
- Data Processing, Visualization
- Sequence Analysis
- Protocol Design
- Leadership & Management
- Research Methods
- Eager Learner
- Interdisciplinary
- Critical Thinking

Ankit (Andy) Kapoor

Aspiring Engineer

Aspiring materials scientist and engineer, bioinformatics and software development enthusiast with proficiency in [Linux](#), [CLI](#), [Python](#), [computational tools](#), [data analysis](#), [laboratory methods](#), and [data visualization \(R\)](#). My collegiate background in biochemistry and computer science, and professional experience have taught me valuable skills to learn and apply interdisciplinary approaches to problems. I have demonstrated leadership in organizing events and managing project development, and have been recognized for academic excellence through prestigious awards. My research contributions span materials science and engineering, computer science, computational biology, molecular biology, and environmental studies.

Related Experience

September 2023 - July 2024

Southern California Coastal Water Research Project | Costa Mesa

Bioinformatics Student Employee

- Multiple sequence analyses using [Linux-based QIIME 2 software](#) for a publication on Environmental DNA studies; [statistical analyses](#) of results
- [Data Visualization](#) of sequence analyses
- Created [Python-based scripts](#) using NCBI Entrez Programming Utilities for querying and downloading custom sequence & taxonomic data in Linux servers.
- Used rCRUX to create custom sequence reference libraries.
- Developed an [HTML-based website](#) to visualize study sites and enhance data accessibility.

May 2023 - December 2023

Concordia University Irvine

Computer Science Laboratory Researcher

- Conducted [research and development](#) on the university's autonomous drone project.
- Used [CAD design](#) and [mSLA 3D printing](#) to create support/mounting parts for drone components such as the camera, flight controller, and antenna.
- Tested optimal operating conditions and compared software for manual control of the drone.

January 2023 - September 2023

Concordia University Irvine

Molecular Biology Laboratory Manager

- Maintained molecular biology lab space and assisted with lab setups for classes.
- [Stored data](#), and [analyzed sequence data](#)
- Performed site-directed mutagenesis studies.
- Created bacterial stocks and stock plates.
- Performed growth assays, primer design, sequence analysis, gel electrophoresis (DNA and Protein), Sanger sequencing, Qubit fluorometer quantification, and custom protocol design, maintained media stocks, and performed machine maintenance.
- Assisted students with thesis projects.

Related Projects

- **Semiconductor Electronic Structure Simulation Software Development** [Graduate Research](#)
- **Crystal-Glass Metal Halide Semiconductor Characterization** [Graduate Research](#)
- **Machine Learning Implementation for Scientific Software** [Graduate Research](#)
- Autonomous Drone, **Computational Modeling**, Molecular Biology [Undergraduate Research](#)
- Molecular Biology of ALS: Modeling and Mutagenesis [Undergraduate Research](#)
- Visual Gaze Data Time Series [Autocorrelation Analysis](#) in R
- Biological [Data Analysis](#), [Statistical Tests and Interpretation](#) in R
- [Data Validation Checks](#) for Environmental DNA Experiments (Python)
- COVID Population and River Flow Sensor [Data Modeling and Visualization](#) (Python)
- Markov Chain Text Generation (Python)
- Sorting Algorithms ([Data Structures](#))
- Numerical Analysis [Convergence Algorithms](#) (Python)