# Andy Ye

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Goal-Oriented Sophomore Studying Computer Science at the University of Washington    andy132@cs.washington.edu

**SKILLS:** **Java, Python, Pytorch**, **Godot**, Powerpoint, Excel, **LLMs**, GNNs, Computational Biology.

## PROJECTS ════════════════════════════════════════════════

**HeLU-DTI, Drug Target Interaction Prediction Via LLMs and HGNNs - Researcher | JUL 2022 - APR 2023**
- ➔ Utilized advanced **large language models** alongside heterogeneous **graph neural networks** to predict **drug-target interactions to improve drug development**. Currently working to publish this research.
- ➔ Achieved **93.7% accuracy**, and consistent high accuracy with unseen testing.
- ➔ Took this project to the **2023 Regeneron International Science and Engineering Fair.**

**CLIMB, Route Planner and Optimizer Given Elevation Data - Creator | DEC 2024 - PRESENT**
- ➔ **Optimization** using Dijkstra's algorithm, Resource-Constrained Shortest Pathing
- ➔ Working on adding optimization for **fuel and electricity efficiency** given grade and weight of vehicle

**CATFISH, Interview Helper & Profile Creator - Creator| JUNE 2025 - PRESENT**
- ➔ Created software which leverages LinkedIn and Meta API's to provide **public information** checks on interviewers
- ➔ Used **NLP** and **CNN's** to generate AI summaries of interviewers given images and text data.

**SPROUT, Research and Development Club Project - Lead | DEC 2022 - MAY 2023**
- ➔ **Created and led a group** of 7 dedicated peers to create an accessible website that **provides acute stress solutions** tailored toward high school students using our school's data. Brought younger members up to literacy in Python.
- ➔ Learned to **code the backend** of a website. **Supplemented AI with neuroscience research.**

**AI Dictionary and Translation App for Mandarin Idioms** - Lead | **FEB 2021 - PRESENT**

- ➔ Edited and digitized dictionary of Mandarin and English idioms to bridge cultures, which has been published.
- ➔ Creating an app with features powered by AI and self-inputted data to **provide tailored language education** - targeted toward students in China looking to learn English.

## EXPERIENCE ═══════════════════════════════════════════════

**The Unity Network - Topic Director of ML and Computational Biology | OCT 2023 - JUNE 2024**

- ➔ Acted as a Topic Director for The Unity Network, a non-profit organization by students which aims to provide **resources/opportunities for research for underrepresented communities**.
- ➔ **Head teacher** for all topics related to machine learning and computational biology. Reviewed research articles by peers on related topics, and planned projects. **Created an AI Bootcamp Guide.**

## EDUCATION ════════════════════════════════════════════════

**University of Washington, Seattle -** BS in Computer Science | 2024 - 2028 - Currently a Sophomore
- ➔ **GPA**: 3.58 [Right lung collapsed, leading to a devastating finals week]
- ➔ Courses complete: CSE123 [intro], CSE331 [SW Design&Implementation], CSE340 [Interaction Programming], CSE351 [Hardware Software Interface], CSE391 [Software Tools], Calc 1,2,3

**Eastside Preparatory School,** High School | **2017 - 2024. GPA**: 3.87 (Unweighted), **SAT**: 1560
- ➔ Notable Courses Completed: **Linear Algebra**, Advanced Topics in Mathematics (**Differential Equations, Combinatorics, Multivariable Calculus**), Advanced Programming: Topics in Computer Science (**Data Structures and Algorithms**), Data Science 1 & 2, Advanced Calculus.
- ➔ Participated in clubs such as Research and Development (SPROUT), Math Team, Varsity Tennis and Track.

**The University of Pennsylvania,** Summer Program | **JULY 2023 - AUGUST 2023** - Microeconomics.

**Boston University,** High School Honors | **JUNE 2022 - AUG 2022** - Linear Algebra/Creative Writing.

## AWARDS/HONORS ═══════════════════════════════════════════

**4th Place Grand Award at Regeneron ISEF in Computational Biology and Bioinformatics** - Regeneron, 2023

**1st Place, Computational Biology and Bioinformatics -** Washington State Science and Engineering Fair, 2023

**Certificate of Achievement** - Wolfram Computation Meets Knowledge, 2023

**Outstanding Achievement in Science Scholarship** - Ohio Wesleyan University, 2023

**Regeneron ISEF 2023 Finalist** - Washington State Science and Engineering Fair, 2023