

# Lance D. Wong

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## Education

### Columbia University | New York, NY

Bachelor of Science in Computer Science, Minor in Math, GPA 3.80

August 2020 – Present

Expected Graduation, May 2024

### High School Dual Enrollment at Worcester Polytechnic Institute | Worcester, MA

Math and Biology coursework with 30 Credit Hours, GPA 4.00

August 2019 – May 2020

## Skills

**Programming:** JavaScript/TypeScript (ReactJS, NodeJS), Python (Pandas, PyTorch, NumPy), C++, C, C#, SQL, Java, HTML, CSS, LaTeX, PostgreSQL, pgAdmin, MongoDB, Neo4j, Plotly, MIPS Assembly, Docker

**OS:** MacOS, Microsoft Windows, Linux, iOS

**Hardware:** Arduino, LTSpice, oscilloscope, multimeter, logic analyzer

**Software:** IntelliJ/VS code, Linux command line, Android Studio, SolidWorks, OpenCV, GitHub, Git, Unity, Adobe Premiere Pro, Adobe Illustrator

**Communication:** Agile/Scrum, Design proposals, technical reports, instruction manuals, presentations (large and small audiences)

**Languages:** English (native), Chinese (conversational), French (beginner)

## Experience

### AbbVie | Worcester, MA

May 2021 – August 2022

#### Software Engineer Intern

- Developed and maintained 2 asynchronous React web apps using a TS frontend, Python/TS backend, and PostgreSQL database. Projects aided researchers in analyzing germline mutation and have been used 250+ times
- Converted molecular dynamics Jupyter Notebook into web-app
- Optimized De novo assembly PyTorch script by updating algorithm and translating to C++, reducing runtime by ~50%
- Evaluated data using NumPy on PACBIO data and reported trends to scientists

### UMass Medical School | Worcester, MA

May 2019 – June 2020

#### Research Intern / Department of Immunology

- Investigated the immunological mechanisms in lupus and morphea under Dr. Jillian Richmond
- Contributed to experimental design, writing, and analysis for studies published in peer reviewed journal ([ResearchGate](#))
- Authored 4 articles for UMass Medical School Lupus website ([UMMS Lupus Blog](#))

## Projects

### Manufacturing Standard Operating Procedure (SOP)

Summer 2022

- Collaborated in a team of 5 to develop a VR simulation of a SOP using C# in Unity
- Business case and grand winner of AbbVie Hackathon (HackVie)

### Personal Website

Summer 2022

- Developed personal website using HTML and CSS

### ParticiPay

Fall 2021

- Collaborated in a team of 4 to create a web-app designed to increase student engagement in online learning

### InStockBot

Fall 2021

- Coded a Python script that regularly checks an item's price and availability on multiple sites, performs cost-analysis and sends a qualitative email alert to the user when a discount is found

### Music Motions: Mobile Application to Enable the Disabled to Play Music

Winter 2019 – Spring 2020

- Collaborated with 2 other team members to develop a face-tracking piano app that allows the user to play, save, and export music files using Android Studio and OpenCV

## Relevant Coursework

**Completed:** Artificial Intelligence, CS Theory, Probability For Engineers, Ordinary Differential Equations, Introduction to Databases, Advanced Programming, Discrete Math, Fundamentals of Computer Systems, Computational Linear Algebra, Data Structures in Java, Introduction to Electrical Engineering, Multivariable Calculus, Biotechnology, Cell Biology, Human Biology