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LANCE D. WONG

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EDUCATION

New York City, NY | **Columbia University** | **Fall 2020 – May 2024**

Computer Science and Math, School of Engineering and Applied Science, GPA: 3.80

- Robotics Software Team, Rock Climbing
- Relevant coursework: AI, CS Theory, Probability For Engineers, Advanced Programming, Discrete Math, Fundamentals of Computer Systems, Linear Algebra, Data Structures in Java, Multivariable Calculus, ODE

Worcester, MA | **Mass Academy at Worcester Polytechnic Institute** | **August 2018 – May 2020**

High School Diploma, GPA: 4.0 unweighted

- Programming Team, Math Team, Western Mass American Regions Math League, BSA, Intramural Basketball
- Relevant coursework (with Dual Enrollment): AP Computer Science, Ordinary Differential Equations, Matrices and Linear Algebra I, Biotechnology, Cell Biology, Human Biology, Anatomy and Physiology

EMPLOYMENT

Worcester, MA | **AbbVie** | **May 2021 – Aug 2022**

Software Engineer Intern

- Developed and maintained two asynchronous React web apps. Both which aided researchers in analyzing germline mutation. TS frontend, Python/TS backend, PostgreSQL database
- Converted molecular dynamics Jupyter Notebook into web-app
- Optimized De novo assembly PyTorch script by updating algorithm and translating to C++
- Performed data analysis using NumPy on PACBIO data to find trends

Worcester, MA | **University of Massachusetts Medical School** | **May 2019 – June 2020**

Research Assistant

- Interned under Dr. Richmond to investigate immunological mechanisms in lupus and morphea
- Learned and performed over 10 types of lab tests to generate 7 figures for publication (ResearchGate)
- Wrote 4 articles for UMass Medical School Lupus website (UMMS Lupus Blog)

TECHNICAL EXPERIENCE

Projects

- **Manufacturing Standard Operating Procedure (SOP)** (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:** (2022) Developed personal website linked above using HTML and CSS
- **ParticiPay** (2021) Collaborated in a team of 4 to create a web-app designed to increase student engagement in online learning
- **InStockBot** (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** (2019-2020) 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

ADDITIONAL EXPERIENCE AND AWARDS

- **BSA** (2020): Eagle Scout, National Youth Leadership Training
- **American Invitational Math Exam Qualifier** (2019): Top 5% of the American Math Competition
- **Math Team Coaching** (2018 – 2019): Coached over 30 middle school students at St. Bernadette's middle school weekly during the school year
- **MIT Massachusetts State Science and Engineering Fair 4th Place Award (MSEF)** (2018): An investigation into the in-vitro interactions between Inter-alpha inhibitors and erythrocyte hemodynamics

Languages and Technologies

- JavaScript/TypeScript, Python, C++, C, SQL, Java, HTML, CSS, LaTeX
- ReactJS, ExpressJS, PostgreSQL, pgAdmin, MongoDB, Neo4j, Plotly, Pandas, PyTorch, NumPy, FireBase
- Windows, Linux, GitHub, Android Studio, Adobe Premiere Pro, Adobe Illustrator