Lance D. Wong

New York, NY 10027 | 508-579-1629 | ldw2125@columbia.edu | US Citizen | lancedwong.com | github.com/ldwong20

Education

Columbia University | New York, NY *August 2020 – Present*
Bachelor of Science in Computer Science, Minor in Applied Math, GPA 3.8 Expected Graduation, May 2024

High School Dual Enrollment at Worcester Polytechnic Institute | Worcester, MA *August 2019 – May 2020*
Math and Biology coursework with 30 Credit Hours, GPA 4.0 unweighted
AIME qualifier, Eagle Scout, ARML (5 years), MIT Massachusetts State Science Fair 4th Place Award

Experience

Intuit | Mountain View, CA *June 2023 – September 2023*
Incoming Software Engineer Intern
- CyberCRAFT (Cybersecurity, Fraud, and Risk Team)

Columbia University | New York, NY *January 2023 – Present*
Teaching Assistant, Social Chair - COMS W4111 Database Systems
- Assisted 400+ students with database concepts (DBMS, ER Design, NoSQL, Graph GBs, Building DB Applications)
- Organized weekly events to promote unity among TA core

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, PostgreSQL database, and AWS server. Projects aided researchers in analyzing germline mutation and have been used 250+ times
- Optimized De novo assembly PyTorch script by updating algorithm and translating to C++, reducing runtime by ~50%
- Assisted in training and onboarding other interns

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 (Google Scholar)
- Co-authored "CXCL9 links skin inflammation and fibrosis via CXCR3-dependent upregulation of collagen 1a1 in fibroblasts" (https://doi.org/10.1016/j.jid.2022.11.025)

Projects

CoBruh (Imperative Language Emphasizing Human Readability) *Fall 2022 – Winter 2023*
- Wrote an imperative, strongly and statically typed programming language from scratch with two classmates.
- Compiler written in OCaml with C libraries and targets LLVM IR - Features: type inference, significant whitespace, and intuitive syntax

Manufacturing Standard Operating Procedure (SOP) *Summer 2022*
- Collaborated with a team of 5 to develop an interactive VR simulation of an operating procedure to educate employees on how to operate certain machines (C#, Unity, Blender)
- Business case and grand winner of AbbVie Hackathon (HackVie)

Web Server *Fall 2021*
- Built a web server from scratch using C and TCP/IP protocol
- Server was designed to accept requests and load static and dynamic web pages coded HTML
- Created the client web page (a lookup server designed to lookup messages in a database) alongside the server

Skills

Programming: JavaScript/TypeScript (ReactJS, NodeJS), Python (Pandas, PyTorch, NumPy, Flask), C++, C, C#, SQL, Java, HTML, CSS, LaTeX, PostgreSQL, pgAdmin, MongoDB, Neo4j, Plotly, MIPS Assembly, Docker, GCC, JSON, OCaml, AWS, Jenkins
Software: IntelliJ/VS code, Linux command line, Android Studio, SolidWorks, OpenCV, GitHub, Git, Unity, Adobe Premiere Pro
Languages: English (native), Cantonese (conversational), Mandarin (conversational), French (beginner)

Relevant Coursework

Completed: Artificial Intelligence, CS Theory, Database Systems, Advanced Programming, Fundamentals of Computer Systems, Computational Linear Algebra, Data Structures, Programming Languages and Translators, Natural Language Processing, Empirical Methods of Data Science, Competitive Programming
In Progress: Parallel Functional Programming, Cloud Computing

Activities

Clubs: Columbia Competitive Programming Team (ICPC), Columbia Barbell (Secretary), Application Development Initiative