

HOLLIS LEHV

EDUCATION

Columbia College, Columbia University in the City of New York

B.A. Computer Science, Minor in Economics 2020

GPA: 4.03 / 4.0

EMPLOYMENT

Tesla

Software Engineering Intern

Palo Alto, CA
Jan. 2020

- Programming features of the user interface for information and entertainment system found in Tesla cars
- Leveraging C++ to increase efficiency and refine memory usage of existing codebase; Reduced memory usage of system by $\approx 13\%$
- Integrated third-party chargers into maps UI. This feature was at the top of the release notes and gained positive media coverage.

Microsoft - Commercial Software Engineering Division

Software Engineering Intern

Redmond, WA
Summer 2019

- Created virtual card game in Unity for Microsoft Game Stack
- Built dedicated library for this project using C# in .NET framework with .NET web API, and console application including menus and games
- Published web API through Docker Hub, ran API within Linux virtual machines

Columbia University Computer Science Department

Teaching Assistant

New York, NY
Dec. 2017 to Dec. 2019

- TA for Advanced Programming (course on C, C++, and networks); Fundamentals of Computer Systems; Discrete Math; Computer Science Theory
- Answered questions and explained challenging topics to students during office hours and by email; graded exams and assignments

AeroFarms LLC

Software Engineering Intern

Newark, New Jersey
Summer 2018

- Created reusable data visualization tool and contributed to front-end and back-end features of platform used by hundreds of researchers and farmers
- Wrote REST API endpoints in NodeJS using MySQL to query information from sensors around the farm
- Optimized older SQL queries to achieve $\approx 75\%$ faster loading time on average
- Implemented passport authentication with MongoDB

PROJECTS

Remote Rehabilitation Graphics and UI Research

Fall 2019

- Adding features to a VR system facilitating remote sessions between physicians and rehabilitation patients looking to improve motor skills
- Implemented networking and physics in Unity

Lipreader

Spring 2019

- Created and implemented web application to teach lipreading by providing videos of words and sounds, and dynamically increasing difficulty of quiz questions as the user progresses
- Developed in jQuery, HTML and CSS
- Earned a grade of 100 in User Interface Design course

Rippl - Pure Functional Programming Language

Spring 2019

- Pure functional programming language with type inference and lazy evaluation, similar to Haskell. Developed for Programming Languages course
- System Architect on team of four developers, managing language features and development tools
- Built type inference system from scratch using Hindley-Milner type inference
- Project earned a grade of 45/40, and was deemed by the professor one of the best projects in the course

Browser Game Suite

2018

- Developed three in-browser programs in JavaScript, HTML and CSS using ReactJS. The first renders Mandelbrot sets pixel-by-pixel in variety of color schemes with dynamic sizing. The second and third are complex educational games. Available to demo at hlevh.github.io/fractalizer/, [/color-clicker](#) and [/egg-crack](#)

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SKILLS

LANGUAGES: Java, C, C++, JavaScript, LaTeX, HTML5, SQL, CSS3, Python, R, C#, OCaml, jQuery, MIPS

TECHNICAL TOOLS: NodeJS, ReactJS, AWS, Git, Unity, Flask, Azure, Docker

HONORS

Columbia College Dean's List

- All semesters in college

US Squash: Scholar Athlete Award

- Winner four years in a row

New York City Science and Engineering Fair: Finalist, Second Award Mar. 2016

NYC Student Conference on Conservation Biology: Best Poster Oct. 2015

ACTIVITIES

Columbia Game Development Executive Board Jan. 2018 to Dec. 2019

- Worked on group projects in Unity and Love engines; coordinated and created tutorials on game development tools for new students
- Lead team of 10+ students to create long-term puzzle games using ReactJS and Love (Lua)
- Increased membership by approximately 40% since appointment

Resident Advising - Resident Advisor, Columbia College Student Housing Aug. 2018 to Dec. 2019

- Developed inclusive community among 60 residents through one-on-one meetings, emails, and bulletin boards
- Planned and hosted building-wide and community-wide recreational and philanthropic events

Columbia Undergraduate Recruitment Committee Nov. 2017 to Dec. 2019

- Responsible for giving tours, hosting new students, and outreach to prospective and admitted students

Math and Science Tutoring Sept. 2013

- Tutored students for the SAT and SAT2 biology and mathematics exams, and tutored peers in algebra and calculus