

# Louis Zhao

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## EDUCATION

### Bachelor of Science in Computer Science

Columbia University, New York, NY

Expected May 2023

- GPA: 3.74
- Relevant coursework: Programming in Java, Data Structures and the Fundamentals of Computing, Linear Algebra, Discrete Math, Web App Development, Operating Systems, Software Entrepreneurship, Natural Language Processing, Advanced Programming, Fundamentals of Computer Systems, Computer Networks, Introduction to Databases, User Interface Design, and Programming Language and Translators

## EXPERIENCE

### Software Engineering Intern

echo3D, New York, NY

May 2022–Aug 2022

- Developed an AR application on iOS using Unity, C#, and echo3D API that allows users to visualize brain, neuron, and spinal cord for educational demonstration and company branding.
- Constructed a WebAR game using Javascript, Python, A-Frame, and Three.js that has 10+ features, cross-platform support, and security optimization.
- Partnered with the Engineering team and presented progress in weekly meetings. Iteratively improved the product based on feedback and new requests.

### Software Engineering Intern

Changing Room, New York, NY

May 2022–Aug 2022

- Maintained the Chrome Extension using Svelte framework, Javascript and Python by adding new features such as displaying overall ratings and recommendations when the user visits unsupported brand websites.
- Enhanced the website using Python Flask, Javascript, and PostgreSQL by fixing 20+ bugs, adding features such as newsletter subscription, and improving and documenting the codebase.
- Promoted communication between CEO, Software team, UI/UX team, and Data Engineering team and synthesized the Figma design, user feedback, CEO requests, and new spring tasks into tangible products.

### Software Engineering Intern

Elphi, Inc., Boston, MA

December 2020–January 2021

- Forged new features for the web application using React.js, Firebase, Material UI, Reactstrap and React-select APIs such as allowing the mortgage lenders to view and manipulate borrowers' information.
- Initiated and refined the documentation for the Engineering team.

## PROJECTS

### Crust

Project Lead, New York, NY

Jan 2022–May 2022

- Designed a procedural programming language that embeds AWK functions using C-like syntax with a comprehensive Language Reference Manual. As the project lead of 5 people, is responsible for code review, merging pull requests, and project management from day one.
- Designed and programmed the compiler by using OCamllex as Scanner, Ocamlyacc as Parser, OCaml as Semantic Checker, C as external libraries, and LLVM as backend. Has added the support of various datatypes and operators like char, string, array, modulus, etc and 20+ awk and string functions.

### Learning American Sign Language

Project Lead, New York, NY

Jan 2022–May 2022

- Developed a web application using Python Flask, Javascript, and jQuery that allows users to learn the basics of American Sign Language in under ten minutes.
- Directed the team of 4 by mapping out the project timeline, resolving team communication problems, and assisting team members of technical difficulties.

## SKILLS

Python, Java, C, Html/CSS/Javascript, Node.js, React.js, Express.js, MongoDB, MySQL, Neo4j, OCaml, Assembly