

# MAX HUANG

max.huang@uwaterloo.ca | maxhuang.dev | linkedin.com/in/max-y-huang | github.com/max-y-huang

## SKILLS

---

- **Concepts:** Software/Web/Mobile Development, Machine Learning, Distributed Systems, Research
- **Languages:** Python, C, C++, SQL, JavaScript/TypeScript, React, Swift, Kotlin, R, HTML/CSS, Bash
- **Technologies:** NumPy, Pandas, Apache Spark, Scikit-learn, PyTorch, Terraform, Linux, Node.js, Flask, AWS

## EXPERIENCE

---

### Max Planck Institute for Informatics

Saarbrücken, Germany

Research Intern

01/2024 – 03/2024

- Assisting a research project in finding effective configurations (e.g. buffer size, time slice duration) for next-generation data center switches using C++ and Python.
- Improving the performance of a network routing algorithm by leveraging parallel computing techniques.
- Analyzing traffic flows and identifying bottlenecks for various network topologies using network simulations.

### Datamuse

San Francisco, CA

Software Developer Intern

05/2023 – 08/2023

- Helped code the performance evaluation pipeline for a reverse dictionary LLM.
- Created a full-stack web app that displays city hall meeting transcripts matching an input topic and location.
- Fixed layout and functional bugs in an iOS app, and refactored the code to improve readability.

Research Software Developer Intern

09/2022 – 12/2022

- Used machine learning algorithms (K-Means Clustering, HDBSCAN) to generate a table of contents for an online thesaurus, improving its search engine optimization and content discoverability.
- Implemented ideas from a NLP research paper to rank English phrases by humor using Scikit-learn models.
- Processed distributed data with Apache Spark to find usage examples for English phrases and their variations.
- Created a GPT pipeline to title groups of related words, improving title accuracies by (est.) 17% and reducing the number of duplicate titles by 69.7%.

### Surfboard

Foster City, CA

Full-stack Developer Intern

01/2022 – 04/2022

- Implemented a feature that generates slideshows based on users' meeting notes, reducing meeting preparation times by (est.) 10 mins per meeting.
- Developed a Slack app, including comment, reply, and notification features, using Node.js and AWS Lambda.
- Collaborated with developers and designers to implement new UI layouts using React.
- Participated in and reviewed merge requests to catch styling inconsistencies and poor code.

### Tjene Corp

Toronto, ON

Front-end Developer Intern

05/2021 – 08/2021

- Contributed to the development and maintenance of a data visualization tool, and helped improve its UI.
- Implemented layout options to display data with varying detail, improving text legibility at varying screen sizes.
- Created custom dashboards for clients to visually present 40,000+ data points using graphs and other charts.

## EDUCATION

---

### University of Waterloo

Waterloo, ON

Bachelor of Computer Science

09/2020 – 05/2025

- **Advanced Courses:** Algorithms, Operating Systems, Machine Learning, Parallel Computing
- **Other Relevant Courses:** Object-oriented Development, Computer Organization, Numerical Computation