

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, Networks, Research
- **Languages:** Python, C, C++, SQL, JavaScript/TypeScript, React, Swift, Kotlin, R, HTML/CSS, Bash
- **Technologies:** NumPy, Pandas, Apache Spark, PyTorch, Scikit-learn, Linux, Node.js, Flask, AWS

EXPERIENCE

Max Planck Institute for Informatics

Saarbrücken, Germany

Network Algorithms Research Intern

01/2024 – 03/2024

- Participated in research to find effective configurations for next-generation optical data center switches.
- Halved the runtime for a network routing algorithm using parallelization and other techniques.
- Generalized a routing algorithm to accommodate any arbitrary network topology (network graph).
- Presented and discussed research findings with mentors and supervisor to determine next steps.

Datamuse

San Francisco, CA

Software Developer Intern

05/2023 – 08/2023

- Helped create the performance evaluation pipeline for a reverse dictionary large language model (LLM).
- Developed a full-stack web app that finds city hall meeting transcripts that match an input topic and location.
- Fixed layout and functional bugs in an iOS app, and refactored the code to improve readability.

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 meeting notes, reducing meeting preparation times by (est.) 10 mins each.
- 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