# Erik Heen

# Software Engineer

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### **SKILLS**

#### Communication

- Excellent written & verbal communication
- Project management
- Project planning
- Resource management
- Agile development

#### Languages

- TypeScript / JavaScript
- C / C++
- Python
- Java
- Go
- Bash

#### Management

- Jira
- Scrum
- Git
- GitHub
- Computer networking
- Server management

#### **EXPERIENCE**

Aerospace Engineering Department, University of Minnesota - Software Design Intern

June 2020 - May 2022

- Redesigned & vastly improved UI/UX for instrumentation data acquisition software for fluid mechanics research laboratory
- Analyzed 5+ implementation options
- Gathered feedback from 15+ users
- Constructed software requirements & specifications
- Developed, tested, and finished a product used by 100+ researchers every year.

### **EDUCATION**

**University of Minnesota, Twin Cities** - B.A. Computer Science

Class of August 2023

#### Coursework

- Software Engineering
- Project Management & Design
- Developing Games & Computer Graphics
- Social & Collaborative Computing
- Algorithms & Data Structures

- Discrete Mathematics
- Linear Algebra
- Advanced Programming Principles
- Operating Systems
- Machine Architecture & Organization

## **Projects**

**Bill Nom:** Natural-language processing machine learning model that summarizes legislative language. Won 1st place at MinneHack 2023 hackathon over 42 other teams. Trained using PyTorch on 1000+ bills scraped from the Minnesota Legislature.

Home Storage Server: Free & Open Source Software tools orchestrated to manage 4+ terabytes of personal data, perform nightly backups, and synchronize data between 10+ devices spread out over 5 people.

**Personal Blog:** Built using Hugo, deployed by GitHub Pages. Gained knowledge of DNS records, TCP/IP, GitHub Actions, HTML / CSS, UI design, Node.js, hosting websites, static site generators, and YAML / TOML config files.