

# Jonathan Liu

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2221 Ridge Ave #2A  
Evanston, IL 60201

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## EDUCATION

**Northwestern University, Evanston, IL**

**Robert R. McCormick School of Engineering and Applied Science**

June 2022 (anticipated)

Computer Science Major, Northwestern National Merit Scholar

GPA: 3.625/4.000

**Relevant Courses:** Machine Learning (CS 349), Intro to AI (CS 348), Design and Analysis of Algorithms (CS 336), Programming Languages (CS 321), Data Structures & Algorithms (CS 214), Intro to Computer Systems (CS 213), HCI (CS 330)

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## TECHNICAL SKILLS

**Software:** Git, Linux, Google Cloud Platform (GCP), Google Firebase, NodeJS, NextJS, Express, Sequelize, PostgreSQL

**Languages:** Python, JavaScript, HTML, CSS, React, React Native, C, C++, C#, LaTeX, MATLAB

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## WORK EXPERIENCE

**PeerPal, Evanston, IL**

September 2020 – Present

Research Assistant

- Full stack contributor in a team of three developers supervised by Northwestern faculty
- Developing student peer-grading tool that can be used with any learning system partnered with the IMS Global Consortium

**Caravan Carpool, Denver, CO**

July 2020 – September 2020

Software Engineer

- Launched Expo React Native iOS carpool app for skiers in Denver with a team of six engineers
- Led pair programming sprints and implementation of multiple Expo APIs in full stack agile development
- Streamlined database structure in Firebase Realtime Database and led backend refactorization
- Wrote automated database maintenance script using cron job with Google Cloud Scheduler

**Northwestern IT Support Center, Evanston, IL**

October 2018 – July 2020

Senior Consultant

- Assessed and resolved NUIT-supported software and service issues for over 500 students and faculty
- Identified phishing and other more complex issues to escalate users to the appropriate departments and groups
- Communicated with users promptly and professionally providing over-the-phone, email, and walk-in assistance
- Logged concise, in-depth documentation for each case for future reference

**Dassault Systèmes, Waltham, MA**

July 2019 – September 2019

Intern - Developer

- Independently developed SolidWorks Slicer add-in using the SolidWorks COM API that takes cross sections of a part and generates cuttable slices that can be assembled into a standing item
- Extensively implemented vectors and transformation matrices in backend calculations
- Specialized in SolidWorks and FabLab machines such as laser cutters and vinyl cutters to manufacture slices

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## COURSE PROJECTS

**Northwestern University, Design/Thinking/Communication Course, Evanston, IL**

Spring 2019

Lead Product Designer

- Designed and constructed agility A-Ramp transportation and storage device for canine athletics training facility Unleashed in Evanston to enable one-person operation of the A-ramp
- Consulted closely with client to determine specific requirements and performed competitive research
- Improved design in multiple iterations by incorporating client and professional feedback