

# Jonathan Liu

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## EDUCATION

**Northwestern University**

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

Computer Science Major, Segal Design Certificate

Northwestern National Merit Scholar

**Evanston, IL**

Jun 2022 (anticipated)

GPA: 3.72/4.00

**Relevant Courses:** Design and Analysis of Algorithms, Data Structures & Algorithms, Intro to Databases, Multicore Concurrent Programming, Machine Learning, Intro to AI, Intro to Computer Networking, Programming Languages

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## TECHNICAL SKILLS

**Technologies:** Git, Linux, Google Cloud Platform (GCP), Google Firebase, React, React Native, NodeJS

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

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## WORK EXPERIENCE

**Amazon**

Incoming Software Development Engineer Intern

**Seattle, WA**

Jun 2021 – Sep 2021

**PeerPal**

Research Assistant

**Evanston, IL**

Sep 2020 – Present

- Full stack contributor in a team of three developers supervised by Northwestern faculty
- Developing student peer-grading tool used with any learning system partnered with the IMS Global Consortium
- Coordinate weekly team and faculty stand-up meetings to review progress and set goals to maximize productivity

**Caravan Carpool**

Full Stack Software Engineer Intern

**Denver, CO**

Jul 2020 – Sep 2020

- 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
- Removed database redundancy by over 67% by streamlining database structure and leading refactorization
- Wrote automated database maintenance script that runs twice a week using a cron job with Google Cloud Scheduler
- Defined product strategy by writing functional requirements and user workflows prior to development and release

**Northwestern IT Support Center**

Senior Consultant

**Evanston, IL**

Oct 2018 – Jun 2020

- Assessed NUIT-supported software and service issues for the Northwestern student and faculty body
- 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 500+ cases for future reference

**Dassault Systèmes**

Automation Intern - Developer

**Waltham, MA**

Jul 2019 – Sep 2019

- Independently developed 3D CAD add-in for SolidWorks in C# using the SolidWorks COM API that takes cross sections of a part and generates slices that can be laser cut and assembled into a physical piece
- Formulated algorithms for backend calculations and slice generation with extensive implementation of matrices
- Specialized in SolidWorks and FabLab machines such as laser cutters and vinyl cutters to manufacture slices
- Created end-of-project demonstration video for upper management to persuade an eventual future release

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## COURSE PROJECTS

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

Lead Product Designer

**Evanston, IL**

Spring 2019

- Designed and constructed an agility A-Ramp transportation and storage device for canine training facility  
*Unleashed in Evanston* that enables one-person operation of the A-ramp
- Consulted with client to assess specific needs and performed industry research to formulate design requirements
- Measured benchmarking metrics from user trials and performance testing to identify areas of improvement
- Improved design iteratively through multiple rounds of testing and incorporating client and professional feedback