

# JOSHUA VISZLAI

✉ viszlai@uchicago.edu 🌐 jviszlai.github.io 🐙 jviszlai

---

## EDUCATION

---

### University of Chicago

PhD in Computer Science

**Expected May 2026**

Advisor: Fred Chong

### Georgia Institute of Technology

Bachelor of Science Computer Science, Minor in Physics

**Aug 2016 – May 2020**

GPA: 4.0/4.0

## SKILLS

---

**Programming Languages:** Java, Python, C, C#, C++, Verilog with some experience in Qiskit, F#, Q#, Swift, HTML, CSS

**Environments:** OS X, Linux, Windows, Visual Studio, IntelliJ, Android Studio, Xcode, Quartus

**Languages:** English (native), French (intermediate)

## EXPERIENCE

---

### Habanero Extreme Scale Software Research Lab

Atlanta, Georgia

*Undergraduate Researcher*

**Aug 2019 – May 2020**

- Worked under Professor Vivek Sarkar in research on compiler optimizations for RISC-V processors
- Used LLVM with RISC-V support and a RISC-V simulator to implement and test optimizations
- Explored optimizations within register allocation and instruction scheduling steps of a compiler

### Microsoft

Redmond, Washington

*Software Engineering Intern*

**May 2020 – Aug 2020 | May 2019 – Aug 2019**

- Worked with engineers on the Visual C++ compiler team to improve the support of the OpenMP standard
- Helped update the backend to target a new runtime and added basic support for a new feature, OpenMP Tasks
- In the previous summer, implemented a machine learning service to categorize user feedback against teams

### RoboJackets

Atlanta, Georgia

*Intelligent Ground Vehicle Competition Software Member*

**Oct 2018 – May 2020**

- Worked with team members to write code for a 200+ lb robot autonomously navigating rough terrain
- Authored nodes for mapping pixels into a 3D space and segmenting ground/nonground points using a 3D Lidar
- Wrote the open-source codebase using ROS and C++

### CS2110 – Computer Organization and Programming

Atlanta, Georgia

*Head Teaching Assistant*

**Aug 2019 – May 2020**

*Teaching Assistant*

**Jan 2018 – May 2019**

- Led a staff of about 21 teaching assistants for a course of about 500 students
- Taught weekly recitations for around 50 students
- Created and graded weekly homework and labs
- Held weekly office hours

### Georgia Governor's Honors Program

Rome, Georgia

*Computer Technician*

**Jun 2018 – July 2018**

- Helped teach introductory programming and data structures courses
- Worked with small team to handle various IT needs for the program
- Worked with another instructor to teach an elective course on machine learning

### RoboJackets

Atlanta, Georgia

*Outreach Member*

**Aug 2016 – May 2020**

*Outreach Assistant Project Manager*

**Aug 2017 – May 2018**

- Organized FIRST Robotics Kickoff Event for Georgia, with attendance of over 1400
- Planned educational sessions to promote robotics in high schools across the country
- Mentored a high school robotics team throughout the year