


# Charles Shi

shi46@illinois.edu | Eden Prairie, Minnesota | (612) 986 - 0487

 linkedin.com/in/cshi02 |  github.com/charlesshi12 |  charlesshi12.github.io

## EDUCATION

---

### University of Illinois at Urbana-Champaign

Expected May 2023

*Bachelor of Science, Computer Science and Statistics (Dean's List)*

GPA: **3.95/4.0**

- Relevant Coursework: Algorithms and Models of Computation, Data Structures and Algorithms, Computer Architecture, Software Design and Testing, Discrete Mathematics, Statistics and Probability

## EXPERIENCE

---

### AT&T — Software Engineer Intern

June 2021 - September 2021

- Projects, teams, and tasks will be determined at a later time (expected to work on AMP Advanced Integration).
- Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent at nisi luctus, sagittis odio at, eleifend turpis.
- Pellentesque gravida feugiat turpis, at rhoncus massa luctus suscipit. Curabitur pretium, erat et aliquam lobortis. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent at nisi luctus, sagittis odio at, eleifend turpis.

### Futurist Academy — Software Engineer Intern

June 2020 - September 2020

- Created a full-stack application that takes in any research paper and outputs similar COVID-19 research papers using Natural Language Processing and graph databases (stored over **1.5 million** edges and nodes).
- Utilized Python and GSQL to develop a personalized patient dashboard with data visualizations and patient statistics.
- Implemented and used REST APIs to interact with TigerGraph and enhance overall security for projects.

### STEM Builders — Computer Science and Robotics Teacher

September 2018 - Present

- Taught programming languages (Python, Java, HTML/CSS, MIT App Inventor, Scratch) and robotics to **K-8** students.
- Designed and planned final projects that assessed the students' problem-solving skills while incorporating their interests.
- Mentored more than **50** students and gained leadership experience after adapting to unforeseen circumstances.

## PROJECTS

---

### Pickup — React, JavaScript, Mapbox, Firebase

MinneHack 2021 Winner

- Collaborated with a team of developers to construct an application capable of linking people who are in need of food with restaurants that have excess food after working hours.
- Placed **1st** out of over **100** participants at the University of Minnesota's hackathon winning **\$1,200** in prizes.

### Let's Talk — React, Node, Express, Firebase, Redis

TreeHacks 2021 Participant

- Partnered with software engineers who attended Stanford's hackathon to create a chatroom that can match users who share opposing political views in hopes of producing a middle ground.
- Leveraged Redis/Firebase to save chat logs and user information and utilized web sockets to send messages between users.

### Prinvoice — React, JavaScript, HTML/CSS, SQL

Deta Software Contributor

- Rewrote the backend of Prinvoice, an open source invoice application, to make it compatible with Deta's database.
- Translated over **30** SQL queries into JavaScript calls to Deta and updated the internal state to account for these changes.

### Tumor Scanner — Python, TensorFlow, Streamlit

- Developed a Convolutional Neural Network that identifies tumors from MRI scans and built its frontend using Streamlit.
- Trained the neural network with more than **7,000** images and modified it to obtain a final accuracy of **95%**.

## SKILLS

---

Languages: Python, C++, Java, HTML/CSS, JavaScript, LaTeX, R, GSQL, SQL, MATLAB

Frameworks/Technologies: React, Flask, Express, Node, TensorFlow, Pandas, Streamlit, Git, TigerGraph, Firebase