# Charles Shi

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## EDUCATION

**University of Illinois at Urbana-Champaign** — Expected December 2022

*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.
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- Pellentesque gravida feugiat turpis, at rhoncus massa luctus suscipit. Curabitur pretium, erat et aliquam lobortis. Pellentesque gravida feugiat turpis, at rhoncus massa luctus suscipit. Curabitur pretium, erat et aliquam lobortis.

**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 more than **100** participants at the University of Minnesota's hackathon winning **$1200** 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 over **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

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