

## BHAKTI SHAH

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### SELECTED SKILLS

#### Languages & Technologies

Assembly (x86-64)	C
Coq/Gallina	Git/SVN
Lean	JavaScript/TS
Haskell	Jest
Scala	Python
Java	R
SQL	React

### LEADERSHIP

**WeBring:** *December 2020*

<https://github.com/bhaktishh/WeBring>

**Winning project** at a hackathon.

**Team Leader.** Built a service that allowed elderly individuals to request services via **SMS**, using **Twilio**.

**Interstell<her> Hackathon:**

*February 2021*

**Mentored** elementary and middle school girls for an app development hackathon over the course of two days.

**stories@CAJCS:** *April 2019 – December 2019*

Founder and Organizational Head of an **annual event** aimed at highlighting individuals in **non-conventional career fields**.

### TEACHING

**Virtual Introduction to**

**Programming course:** *June 2020*

**Designed and conducted** a course for children aged 6-9. Primarily in **Scratch**.

**Coding4Youth:** *June 2021 – August 2021*

**AP Java** and middle school **mathematics tutor**.

TA: **CMSC 11111** [Creative Coding] *Winter 2022*.

Grader: **CMSC 16100** [Honors Introduction to Computer Science I] *Autumn 2021*. **CMSC 15200**

[Introduction to Computer Science II] *Spring 2022*. **CMSC 27100** [Discrete Mathematics] *Fall 2022*.

Course Assistant: **CMSC 22300** [Functional Programming] *Autumn 2022*. Providing feedback and beta testing potential assignments.

### INTERESTS

Playing and watching soccer  
Creating art  
Playing the piano

### EDUCATION

**The University of Chicago**

*B.S. Computer Science (Declared)*

**GPA: 3.69/4.00**

Chicago, IL

June 2024

### SELECTED WORK EXPERIENCES

**Amazon Web Services (AWS)** [<http://aws.amazon.com/>]

*Software Development Engineer Intern*

East Palo Alto, CA, US

June 2022 – September 2022

- Transitioned the **logging system** for a backend dependency of the **AWS Global Console** to a more robust and accessible platform. Made **configuration changes** that **improved latency** and **ease of use** for all service teams across the Console.
- Wrote **holistic end to end tests** in **TypeScript** using the **Jest** framework for the same backend service, allowing a transition from slower, manual deployments to **faster, automated deployments** for a **high priority service**.

**Bankuish** [[www.bankuish.com/](http://www.bankuish.com/)]

*Android Development Intern*

Chicago, IL, US

April 2021 – June 2021

- Built the learning component of the **Android** application Bankuish in **Java**.
- Utilized the **YouTube API** to display content dynamically.

**Computer Science Instructional Laboratory** [[csil.cs.uchicago.edu/](http://csil.cs.uchicago.edu/)]

*Systems Administrator*

Chicago, IL, US

March 2021 – Present

- Assisting members of the computer science community with their technical needs.
- Head of Inventory and Scheduling, responsible for 5 computer labs and 30 staff members.

**Sameeksha Capital** [[sameeksha.capital](http://sameeksha.capital)]

*Intern*

Mumbai, MH, IN

July 2020

- Built software that compiled data about company executives' interviews **dynamically**.
- Scraped web data in **Python**, utilizing the **Selenium webdriver API**.
- Stored data using the **Pandas** library and **pickling** for efficiency.

**Heckyl Technologies** [<http://heckyl.com/>]

*Intern – Java Team*

Mumbai, MH, IN

June 2019

- Built software that compiled data from regulatory sites and documents.
- Scraped web data in **Java**, utilizing the **HTMLUnit** browser and **PDFBox** library.
- Stored data in a **MySQL cloud database**, using **SQL** commands.

### SELECTED PROJECTS & RESEARCH

**tree-house**

March 2022 – June 2022

Developing a code editor focused on **direct manipulation programming systems** in **TypeScript**. Based on [Sketch-n-Sketch](#). Under guidance of Ravi Chugh, Associate Professor, University of Chicago.

**Chicago Quantum and Programming (Languages) Lab (ChiQP lab)** April 2022 – Present

<https://chiqp.cs.uchicago.edu/>

Worked on **formal verification** of a **quantum programming library**. Currently working on translations between Lean and Coq theorem provers. Under guidance of Robert Rand, Assistant Professor, University of Chicago.

**ucopendata**

January 2021 – December 2021

<https://github.com/UCOpenData>

Analyzing the impact of remote learning on student sentiments, using web-scraping in **Python**, utilizing **Pandas**, **BeautifulSoup**, and **Selenium**.

**Human-Robot Interaction Lab (HRI Lab)**

February 2021 – March 2022

<https://hri.cs.uchicago.edu/index.html>

Exploring the impact of the presence of **robots** in relation to **fostering deep conversations** between individuals. Under guidance of Sarah Sebo, Assistant Professor, University of Chicago.

**Pediatric Cancer Data Commons (Volchenboun Lab)**

June 2021 – September 2021

<https://commons.cri.uchicago.edu/pcdc/>

Research Assistant with the PCDC. Working with an **expert data analyst** to **map data dictionary terms**. Under guidance of Samuel Volchenboun, Associate Professor, University of Chicago.