

Akshar Barot

☎ 314-760-8149 | ✉ akshar.barot67@gmail.com | in aksharbarot | 📺 notAkki

EDUCATION

University of Waterloo

Bachelor of Software Engineering, Honors - **3.95** cumulative GPA

Waterloo, ON

Expected 2027

SKILLS

Languages: Java, Javascript, Python, C, C++, Typescript, HTML/CSS

Frontend: React.js, Next.js, Gatsby, Tailwind, Bootstrap, Photoshop

Backend: Node.js, Express.js, MongoDB, Firebase, Flask

Developer Tools: Git, Github, VS Code, Bash, Powershell, Jupyter Notebook

EXPERIENCE

Project Manager & Lead Developer

Nov. 2022 – Jan. 2023

Ladue Computer Science Club

St. Louis, MO

- Developed a multi-faceted information hub with club updates, schedules, calendars, and resource access
- Gathered and integrated data from **over 50** school clubs into a **MongoDB** database via Google Forms
- Managed collaboration between developers and the student body for efficient data collection and platform design
- Streamlined access to critical resources by centralizing information from multiple resources onto a single platform
- Paused active development to prioritize teaching programming concepts to accommodate novice programmers

Instructor

Dec. 2021 – May 2022

Ladue Computer Science Club

St. Louis, MO

- Developed and co-authored a **12-module** beginner-friendly Python course utilizing a series of Jupyter Notebooks
- Covered introductory concepts like variables, conditionals, loops, lists, libraries, and additional relevant topics
- Delivered instruction to **over 30** students, enabling them to apply Python and essential programming concepts
- Promoted active engagement and practical learning through a personal project culmination to the course

PROJECTS

Jarvis 📄 - Interactive 3D Hologram Environment | *Next.js, Python, Flask, Three.js, OpenCV, Mediapipe*

- Enabled precise real-time manipulation of virtual objects in 3D space based on hand position and gesture
- Implemented **3D tracking** by mapping distances between hand landmarks along a linear regression
- Integrated gesture recognition for efficient object scaling, rotation, and translation using intuitive hand movements
- Enabled **touch-free** interaction with voice commands using the **Web Speech API** for greater user convenience

Portfolio + Blog 📄 | *Next.js, Typescript, Javascript, HTML/CSS*

- Implemented **Static Site Generation** for **Markdown** blog posts resulting in significantly faster loading times
- Designed a sleek, responsive UI using **Tailwind CSS** for cross-platform capability

Shopping List App - Cross-platform List Web Application | *Javascript, Firebase, HTML/CSS*

- Implemented efficient data management using **Firebase Realtime Database** for seamless updates and storage
- Deployed as a **Progressive Web App (PWA)** enabling accessibility across web, Android, and iOS platforms

ClickClack 📄 - CPS Test | *Javascript, HTML, CSS*

- Crafted a distraction-free, minimal and intuitive interface using **Bootstrap**, for a streamlined user experience
- Implemented customizable test duration options, allowing users to tailor the challenge to their preferences