

Rabia Ghafoor

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EDUCATION

Indiana University Bloomington

Bachelor of Science - BA, Computer Science,

Bloomington, IN

Expected: December 2025

PROFESSIONAL EXPERIENCE

Headstarter AI Software Engineer Fellow

July 2024 - September 2024

- Built 5 AI projects in 7 weeks by collaborating with 3 teammates using Stripe API, OPEN AI API, and modern tech stack
- Networked with engineers from Google, Meta, Amazon, venture-backed startups in weekly talks, sprints, mentor sessions

ConTracker Founder and Student Developer

January 2020 - October 2021

- Built ConTracker, an iOS proptech mobile app that tracks the construction of luxury homes
- Created 25+ Wireframes, UML Diagrams, Structure, and 10+ Flowcharts for the app using Mockflow
- Designed UI for mobile app using Sketch, and developed Front-end using Swift5; Back-end using parse and cocoapods
- Integrated the feature of remote push notifications (RPNs) into the app
- Conducted user testing sessions with over 25 participants, gathering critical feedback that directly informed three significant app updates and resolved the top causes of application crashes prior to launch

PROJECTS

RenewTube [Link](#)

May 2024 - Present

- Architected RenewTube, an app that utilizes FFmpeg libraries to change the existing video quality to 360p, 420 and 720p
- Achieved successful deployment of 20+ media files onto scalable cloud infrastructure with Firebase, Firestore and GCP

RateMyProfessors ChatBot [Link](#)

August 2024 - August 2024

- Collaborated with three teammates to build a Chatbot that provides feedback, rating of professors, and suggests professors based on end-user/student needs • Implemented the GPT-4o-mini API keys, Langchain and RAG • Utilised Pinecone, a vector database, and Jupyter Notebooks to store data, and on the backend

TechPrepBot [Link](#)

July 2024 - August 2024

- Developed TechPrepBot, a study bot that enables users to prepare for technical interviews and study data structures and algorithms • Executed robust backend functionality within tech stack using Open AI API, Langchain, and RAG to create a responsive chatbot, deployed via Vercel • Used Material UI on the frontend for UI design

Pantry Management [Link](#)

July 2024 - July 2024

- Constructed a pantry management system to store pantry items using Javascript, Typescript and Next.js • Utilized Firebase to store data on the backend, and deployed using Vercel • Implemented login functionality using GCP (Google Cloud Platform) to authenticate user credentials, to provide an individualized pantry items management system for the user
- Trained a ML model to identify the pantry management items based on a picture

Flower Shop Project [Frontend](#) [Backend](#)

April 2024 - April 2024

- Developed Flower Shop, A spring boot based web app that enables users to purchase flowers with 25 distinct endpoints
- Engineered Frontend using HTML, CSS, Javascript, and deployed Github Pages; Utilized Postman to send JSON API requests
- Produced backend using spring framework and spring boot application, and deployed on Render
- Connected the database using Dbeaver; Integrated CI/CD ensuring 0 deployment errors across 9 iterations on frontend
- Coded user login and sign up functionality, and discount features, along with add/delete features for flowers in cart

LEADERSHIP & EXTRACURRICULAR ACTIVITIES

INgineering at IU President

May 2023 - Present

- Spearheaded Third Edition of Luddy Hackathon in Fall 2024 with a 20+ executive board member team with 150+ attendees
- Managed long-term vision and operations, held biweekly meetings with Senior Advisors • Grew the club membership from 20+ members to 150+ members • Managed the funding allocation for the Marketing, Finance and Operations Departments
- Initiated semester-long partnership with a quantum computing club • Conducted Hackathons for two semesters in collaborations with 4 other clubs, Computer Science Club, Google Developer Student Club, Women in Computing, DSC club

Venture Capitalists at IU

Bloomington, IN

Vice President of Operations

January 2023 - December 2023

| Director of Operations

March 2022 - December 2022

- Coordinated club's weekly meetings and guest speaker events by creating event requests with the Student Activities Office
- Researched and generated 8+ presentations tailored to events to educate general members on the venture ecosystems
- Coordinated with the vice-presidents to streamline operations and regulated internal club agendas and noted 11 meeting minutes

Indiana University, Luddy School of Informatics, Computing and Engineering

Bloomington, IN

Undergraduate Student Researcher

September 2022 - December 2022

- Employed computational techniques to analyze voter sentiments, predict fraud, and the spread of misinformation on social media during U.S Midterm Elections 2022 • Collaborated with researchers to compile a 90+ keyword list; estimated the prevalence of misinformation on the images gathered • Researched and Collected data from Twitter/X, and Meta to classify tweets, and images, and generated graphs using excel to assign credibility as high or low

TOOLS AND TECHNOLOGIES

Java | AWS | Python | CI/CD | PostgreSQL | HTML | CSS | Javascript | TypeScript | Docker | Git | C | Firebase | Swift | Postman | GCP | Langchain | Vector Databases | Pinecone | Linux | Amazon EC2 | Amazon Elastic Beanstalk | Kubernetes | PostgreSQL | React | NextJS | Clerk | Stripe API | Open AI API | Next.js | Material UI | C | RISC-V | Agile Methodologies