

Ruchika Biswas

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EDUCATION

University of Illinois at Urbana-Champaign

Bachelor of Science in Computer Science

GPA: 3.73

Expected May 2024

- Relevant coursework: Algorithms and Models of Computation, Machine Learning, Artificial Intelligence, Databases, Systems Programming, Game Development, Numerical Methods, Probability and Statistics for Computer Science, Data Structures, Discrete Structures

SKILLS

- Software: Python, C, C++, Java, SQL, MongoDB, C#, REACT, HTML, JavaScript, Flutter, Firebase, Unreal Engine, TensorFlow, Pytorch

WORK EXPERIENCE

Meta Production Engineering Fellowship

May 2022 – Aug 2022

- Completed 12 weeks of structured curriculum-based learning covering core **Production Engineering** topics, supplemented with events/ workshops hosted by Major League Hacking and Meta
- Created an open-source personal portfolio website template using **Python, Flask, Jinja, MySQL, Nginx**, and unittest
- Automated testing and deployment workflows using **CI/CD**
- Set up system and container monitoring, alerting, and visualization using **Prometheus** and **Grafana**

Undergraduate Research

January 2022 – present

- Worked with **Professor Geoffrey Herman** to evaluate the effects of the frequent vs infrequent testing
- Ran data analysis using **Pandas** to evaluate the shift in student performance for over **2k students** over various semesters and its implications
- Writing a **research paper** to evaluate its effects on students' intrinsic motivation to learn

PROJECTS

RokWire and Illinois App

Spring 2023

- Collaborated to create a career matching feature on the Illinois App **used by over 20k students**
- Using **Flutter** and **Python** to collect and process user data and then using an **AI model** for the matching

Motion Detecting Security System

Fall 2021

- Used a Raspberry Pi Computer to create a motion-detecting system which records and stores video
- Implemented my own motion-detecting algorithm by checking the color difference between frames

Recipe Sharing Web Application

Fall 2022

- Created a **Flask** web application to allow users to register, add/delete/edit recipes, and rate recipes
- Implemented an **AI recommendation system** based on recipes a user has liked and the recipe's popularity
- Designed and created a **MySQL** database and deployed the app using **Google Cloud Platform**
- Optimized the database queries to increase application performance by **50%**

LEADERSHIP & ACTIVITIES

Reflections Projections Development Team Member

Spring 2022

- Used a **REST API** and **REACT** to develop a website for the Reflections Projections tech conference
- Designed an animated frontend using **Figma** and worked in a team of 8 individuals

Women in Engineering Computer Science Department Lead

August 2022

- **Selected to represent the computer science department** to incoming freshmen students
- **Presented to over 150** new students about navigating coursework, the CS curriculum and mental health

Women in Computer Science Explorations Project Manager

Spring 2021

- **Managed** a team of students to create a plan and timeline to finish the University SafeWalks App
- Resolved team conflicts and helped troubleshoot any problems other developers faced while working

