# Roshni Mathew

# **EDUCATION**

#### **B.S. in Computer Engineering**

University of Illinois Urbana-Champaign **GPA:** 4.0/4.0

August 2022 - Present

#### **Study Abroad**

Hiroshima Institute of Technology May 2023 - July 2023

#### **High School Diploma**

Whitney M. Young Magnet HS

**GPA:** 4.0/4.0

August 2018 - June 2022

# COURSES

- Data Structures and Algorithms
- Analog Signals and Systems
- · Neuroscience for Engineers
- Multivariable Calculus
- · Intro to Differential Equations
- · Mechanics/Electricity and Magnetism
- · Computer Systems and Programming
- Discrete Structures

#### **HONORS & AWARDS**

May 2023 - Dean's List

April 2023 - Clare Boothe Research Scholar

# TECHNICAL SKILLS

#### Languages:

- English
- Japanese (Intermediate)

#### **Programming Languages:**

- C/C++ (Intermediate)
- Python (Intermediate)
- HTML/CSS (Intermediate)

#### **Technology**

- Arduino (Intermediate)
- · Android Studio (Familiar)
- 3D Printing (Familiar)

#### CONTACT

- **3** 312-802-7878
- **☑** roshnimathew04@gmail.com
- roshnim3.github.io
- in roshnimathew04

# WORK EXPERIENCE

OTCR Consulting - Lead Consultant, Internal Project Manager SEP 2022 - NOW

- Formulated a pricing recommendation for a med-tech startup, blending market analysis and revenue projections, ensuring the product's optimal positioning.
- Innovated recruitment strategies for a University of Illinois school by creating a multi-faceted plan focused on enhancing the school's appeal to applicants.
- Directed a team of 4-5 consultants, consolidating information from 28 past firm projects into a user-friendly, accessible database

#### Human Dynamics Control Lab - Research Assistant

**JAN 2023-NOW** 

- Led the conceptualization and development of an app designed to oversee the operation of a robotic arm task trainer.
- Implemented a serial Bluetooth communication protocol, integrating Arduino, HC-05 Bluetooth module, and Android Studio, establishing a seamless wireless connectivity between the app and robotic arm.

# **Engineering Open House** - Director of Advancements

MAY 2023-NOW

- Forged a productive partnership with the University Advancements Office and over 15 departments, effectively collaborating to design and execute special events tailored for visiting alumni.
- Coordinated logistics, communications, and activities that enriched the alumni experience and strengthened their connection to the university.

# Loyola University of Chicago - Research Assistant

**JULY 2022-AUG 2022** 

- Constructed a robust network file system, enabling seamless access to server files from within the cluster environment
- Developed a dynamic IP address assignment protocol to allocate IP addresses to each Nano, facilitating efficient communication within the cluster.

# PERSONAL PROJECTS

### **Battleship Game**

JULY 2023

- Developed a Battleship Game in C++, featuring interactive ship-to-ship combat and player-versus-computer gameplay dynamics.
- Currently engaged in an advanced phase of the project, dedicated to enhancing the computer's attacking algorithm

Robotic Car MAY 2023

- Collaborated within a team of four members to engineer a robotic car with the ability to respond to loud sounds by changing its direction.
- Designed the complex circuit, combining components from rotor movement to microphone and amplifier configurations.

LED Cube JANUARY 2022

- Constructed a LED Cube by executing intricate soldering work, meticulously assembling and interconnecting 216 LEDs to craft the cube.
- Diligently working on programming the cube to execute captivating patterns.

# VOLUNTEER WORK

#### Crochet

September 2018-NOW

- Taught over 60 people how to crochet to help teach methods of relieving stress
- Coordinated the collection of 80 crocheted items, all of which were generously donated to local shelters and hospitals.
- Orchestrated various successful fundraisers resulting in approximately \$ 2,500 in funds raised for Project Hope and Room to Read