

# MANNAN SHUKLA

Robbinsville, NJ

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## EDUCATION

### Rutgers University - New Brunswick

Bachelor of Science - Computer Science

GPA - 3.5

Expected May 2026

- Data Structures and Algorithms, Computer Architecture, Discrete Mathematics, Linear Algebra
- RUSLUG, RU Security Club, Photography Club, Sailing Team, Design for America (DFA), IDEA

## EXPERIENCE

### Research Assistant

Rutgers University Rail and Transit Program

October 2023 - Present

New Brunswick, NJ

- Working under Dr. Xiang Liu researching how autonomous vehicles can safely pass railroad crossings without warning devices.

### Marketing and IT Director

American Louvered Roof

July 2023 - Present

Trenton, NJ

- Designed and developed web presence using Bootstrap deployed on Google Firebase (<https://americanlouveredroof.com>)
- Manage all company servers, domains, email addresses, VoIP, and digital accounting overseeing thousands of dollars
- Formalized next-generation regional marketing strategy using social media plus traditional face to face techniques
- Fostered relationship with 3 major clients resulting in current sales over \$30,000

### Student Design Researcher

Innovation, Design, and Entrepreneurship Academy at Rutgers

June 2023

New Brunswick, NJ

- Developed Full Stack Volunteer Management System for non-profits with team of 5 design researchers in a 5 week program at Rutgers University
- Located, Interviewed, and Consulted 5 key stakeholders from the Mercer and Middlesex County area
- Presented finalized project and process to stakeholders, program directors, Deans at Rutgers, and the greater university community
- Secured contract to deploy for Robbinsville Hydroponic Farm at the conclusion of the project

## LEADERSHIP

### President

Rutgers University Student Linux User's Group (RUSLUG)

September 2023 - Present

New Brunswick, NJ

- Relaunched club following 12 year gap, developed constitution and recruited 20 members
- Responsible for all recordkeeping and communications with Rutgers CS and Involvement Departments
- Hosting installfests, keysharing events, howto presentations, lan parties, and discussions
- Launched and maintained all community outreach and Linux servers for website, games, and libre services

## PROJECTS

### zipgig | Python, FastAPI, Bootstrap, MongoDB

2023

- Created a full-stack web application to help users find one day jobs and gigs
- Utilized Bootstrap and Jinja templating to create a dynamic and approachable frontend
- Implemented FastAPI and python to implement a simple yet powerful REST API for backend
- Incorporated MongoDB database for efficient querying to eliminate wait times for all users and post data

### headcount | Python, FastAPI, React, MongoDB, pypdf, Google Sheets API, git

2023

- Developed a full-stack web application for volunteer management using FastAPI serving a REST API with a React frontend
- Implemented pypdf to make writing forms easier and to fully automate recordkeeping, saving hours of searching
- Integrated Google Sheets API to automatically generate spreadsheets containing user data and records for easy submission

### clapmaster | Python, Raspberry Pi, OpenCV

2023

- Designed rhythm game for Raspberry Pi - a motor generates a randomly generated vibration beat, users must repeat the beat with claps
- Utilized computer vision to detect hand placement and claps
- Created algorithm to generate beat patterns with increasing difficulty

## TECHNICAL SKILLS

**Languages:** Java, Python, C, JavaScript, HTML/CSS

**Frameworks:** React, Node.js, FastAPI, Flask, Bootstrap, MongoDB, tensorflow, pandas

**Developer Tools:** Git, Docker, Linux, AWS, Firebase, vim

**Certifications:** AWS Cloud Practitioner - In Progress, ISC2 CCSP (Certified Cloud Security Professional) - In Progress