# Onis Tripathi

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## EDUCATION

**University of California, Irvine**

Major: B.S. Computer Engineering                                           September 2019 – June 2023

Relevant Classes: *Data Structures and Algorithm, SQL, Object-Oriented Programming (Java), Advanced C Programming, Computer Network, Operating System (C++), Machine Learning (Python), Network Science (Python)*

## PROFESSIONAL EXPERIENCE

**University of California, Irvine**                                           August 2022 – Present

Resident Advisor

- Maintaining a 98.98% approval rating based on a residential hall of 68 diverse residents
- Providing on-call crisis management for undergraduate housing community of 3,000+ residents

**Cox Automotive**                                                                  June 2022 – August 2022

Site Reliability Engineer Intern

- Automated branch protection rules through TypeScript and GitHub Action reducing setup time by 90%
- Engineered a blue/green deployment methodology using AWS CodeDeploy to enable automated deployment of application on Amazon Elastic Compute Cloud; achieved 99.99% uptime and 30% reduction in deployment time
- Developed a Slack bot to keep team members updated on the repository's status

**MicroMouse@IEEE**                                                              May 2021 – April 2022

Software Lead

- Managed an interdisciplinary team and provided guidance on coding best practice and project timeline oversight
- Created a starter kit and user manual with all the necessary hardware to onboard new members to the club

**CAL2CAL**                                                                         July 2021 – September 2021

Student Researcher

- Integrated AWS S3 and Lambda services into a React-based API endpoint, enabling users to easily upload and download content from their S3 bucket based on their smart contract from the Ethereum network

**TheCoderSchool**                                                                March 2021 – August 2021

Code Tutor

- Introduced basic data structures, algorithms, and recursion concepts to prepare student for college level courses
- Implemented an individualized 5-week coding curriculum based on students age and coding experience

## PERSONAL PROJECTS

**Identifying ADHD Brain Network**                                                              *Python*

- Used Jupyter Notebook and machine learning-based model in Python to develop a 3D visualization aimed at gaining insight into the neural mechanisms underlying the brain network associated with ADHD

**Blockchain Based Voting System**                                                                *Java*

- Implemented a secure blockchain-based voting system using Java, which enabled transparent and secure tracking of voter identification and vote counting, helping to prevent electoral fraud

**2D Mapping Environment Device Ultrasonic - Echo**                                              *Python*

- Created a Raspberry Pi access point through Python that hosted a website ran through NGINX and FastAPI
- Mapped a 2D environment using SLAM algorithm and ultrasonic sensor HC-SR04 data for robot navigation

**Robotic Maze Solver - Micromouse**                                                              *C++*

- Developed an embedded system for a maze-solving autonomous robot using C++ and the Arduino IDE
- Designed a maze simulator in C++, enabling easy testing and visualization of code without a physical robot

## TECHNICAL SKILLS

**Languages:** Python, Java, C/C++, SQL, Typescript, JavaScript
**Framework:** FastAPI, Flask, GitHub Actions, React, Terraform, Docker, Jest
**Skills:** Git, Linux, Microsoft Excel, Photoshop