HAARIS RAHMAN

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Greater San Diego Area, CA 92037

EDUCATION

University of California, San Diego — La Jolla, California
Master of Science in Electrical and Computer Engineering | GPA: 3.67 / 4 — Expected June 2023
Relevant Coursework: Statistical Learning, Probabilistic Reasoning and Learning, Linear Control Theory

Ramaiah Institute of Technology — Bangalore, India
Bachelor of Engineering in Electronics and Instrumentation | GPA: 9.86 / 10 — August 2017 - July 2021
Relevant Coursework: Robotics, (Advanced) Control Systems, Artificial Neural Networks and Fuzzy Logic, OOPS with C++ and Data Structures

SKILLS

Languages: Python, C, C++, Matlab
Tools: Pandas, Numpy, Pytorch, Keras(Familiar), Computer Vision, Microsoft Office, Google Suite
Soft Skills: Leadership, Cooperative, Willing to Learn, Adaptable, Time Management

RESEARCH EXPERIENCE

Professor Pengtao Xie's Lab [Python, Pytorch] — UC San Diego, California
Summer Research Intern — June 2021 - Present

- Research on optimizing evolutionary and differentiable neural architecture search (NAS) algorithms
- Apply neural architecture search to skin cancer classification in Python with a model accuracy of 82%
- Leverage human-learning skills for NAS to increase model accuracy to 84%

iMov MotionTech Pvt. Ltd. [Python, Keras, Pandas, ESP32, Embedded C] — Bangalore, India
Gait Analyst Research Intern — Oct 2019 - June 2021

- Collected acceleration, gyroscopic and Euler data of several individuals wirelessly
- Modelled the gait cycle of individuals and predicted the 'heel strike' using deep learning algorithms in Python with a model accuracy of 100%
- Programmed a deep learning model on a microcontroller from scratch for real time prediction of heel strike in 'C'

PROJECTS

Autonomous Maze Solving Robot [Arduino, Embedded C] — June 2018 - Dec 2018

- Constructed a robot to find the shortest path within a maze and avoid obstacles
- Developed a PID algorithm for corrections in deviation from the path while following a line

GyroBot | Engineering Design Course [Arduino, Embedded C] — Feb 2018 - April 2018

- Designed a self-balancing robot based on Arduino microcontroller
- Implemented a PID algorithm to vary the speed of the motors using linear and angular acceleration values

BatMan [Arduino, Embedded C] — Sep 2017 - Oct 2017

- Made an Arduino based spectacle, glove and listening system to aid the visually impaired in detecting the presence and height of steps using triangulation method
- Indicated the color and degree of hotness of objects by varying the frequencies of acoustic signals

PUBLICATIONS

- **Haaris Rahman**, Ashwij Kumbla, Megharjun V N, Viswanath Talasila — June 2021
  Accepted at Sixth International Conference on ICT for Sustainable Development, India, 2021
- Sekhar, SR Mani, Snehil Tewari, **Haaris Rahman**, G. M. Siddesh. — Oct 2020
  "**Data Collection in Fog Data Analytics.**" In ***Fog Data Analytics for IoT Applications***, pp. 79-104. **Springer, Singapore, 2020.**

CERTIFICATIONS

Modern Robotics: Mechanics, Planning and Control Specialization, Northwestern University, Coursera — July 2020
Deep Learning Specialization, Deeplearning.ai, Coursera — Jan 2020
Machine Learning, Stanford University, Coursera — Aug 2019
Introduction to Data Science in Python, University of Michigan, Coursera — July 2019