Nikhil Kulkarni Rajendra

St. John's, Newfoundland, Canada
https://www.linkedin.com/in/nikhil-kulkarni-a56252122   +1 7096852750 | nikhil.kulkarni.rajendra@gmail.com

PROFILE

A dedicated and energetic individual seeking to join as a software engineer with a graduate degree in computer engineering and with an experience in technical industry to contribute to the delivery of quality software solutions by applying interpersonal skills and knowledge of program design.

WORK EXPERIENCE

Application Engineer | Nihon Communications Solutions Pvt. LTD, BENGALURU, INDIA | |SEPT18–APR19|

Nihon Communication Solutions Pvt Ltd is a Japanese based company that aims at developing technology and providing software solutions to the areas like Network Simulation/Emulation, Network Design and Analysis, Cyber Security training and assessment, Internet of Things.

Responsibilities:
- Designed and planned WiredNetworks, Wireless Networks such as WiMAX, 2G,3G, 4G, LTE, Wi-Fi.
- Analyzed the designed networks to simulate and optimize these networks to nearly 95% using different networking protocols such FTP, VoIP, 802.11 and other IEEE standards.
- Compared the simulated and the real-time networks to check the accuracy in each, which was close to 90% in the case of simulation.
- Simulated and emulated the networks using tools such as QualNet and Exata.
- Trained graduates and undergraduates by conducting hands-on workshops single-handedly in several institutions across the state on Computer networking using QualNet and Exata tools.
- Assisted PhD projects in a team related to network optimization, simulation, and emulation.

Intern | Hindustan Aeronautics Ltd | Ministry of Defense, Govt of INDIA | BENGALURU, INDIA | |FEB 18 – MAR19 |

- As an intern I explored the LRU lab of the MRO division which is the Line Replaceable Unit for the light combat aircrafts and the helicopters. I was a part of the design process of the programmable configuration module chip for the LRUs that stored configuration information of the system.

Intern | Bharat Electronics Ltd | Ministry of Defense, Govt of INDIA| BENGALURU, INDIA | | JAN18 – FEB18 |

- As an intern I explored the Avionics lab where I was a part of the testing process of the Drone interception and countermeasure system. A LIDAR tracking system was used to track a target drone and provide the information of the target drone and a robust intercept drone was tested as a countermeasure.
- Analyzed & contributed to chip level development and testing of ESMs for "SWARM Helicopter flight enhancement."

EDUCATION

Memorial University of Newfoundland | CANADA |**MASCE in Computer Engineering** | | SEPT 19 – APR21|
Visvesvaraya Technological University |INDIA| **Bachelor's in Electronics and Communication Engineering** |AUG 14 - JUN 18 |

CERTIFICATION

- Python Data Structures (Coursera) | APR 2021|
- Python for Everybody (Coursera) | APR 2021 |
- HTML, CSS, JAVASCRIPT |MAY 2021|

PROJECTS

Website Creation using HTML, CSS and ReactJs (EGSS website)

- Assisted seniors in developing designs for web products and converting designs into interactive web elements.
- Pitched-in as one of the developers for the front end of EGSS website which happens to be the website of one of the volunteering student societies of Memorial university of Newfoundland.
- Relayed information between the members of a team of designers and developers according to the instructions of the professor.

FIR filter design using Windowing method and Frequency Sampling method

- Designed the FIR digital filter was accomplished with the use of filter design and simulation tool namely Quartus Prime by Intel. The project encompasses all the fields that are used in the realization of the filters by simulation i.e design method, selection of the structure to reduce the arithmetic complexity of FIR filtering.
- Simulated results also gave the relative comparison between the 2 methods windowing and frequency sampling methods with respect to factors like structural orientation, cost, speed of operation and performance.

Human Recognition using Convolutional Neural Networks

- Developed, trained, and executed the final project under the guidance of head of the department at the university. It was based on the human recognition system using convolutional neural networks with the help of efficient frameworks like TensorFlow, sci-kit learn and Open CV using python programming.
- Improved and resolved using hardware like Raspberry Pi and a Pi camera on the Raspberry Pi software. Desired results were achieved with detection and recognition rates ranging between 88% and 92%.

TECHNICAL SKILLS

- **Operatingsystems**: Windows, Linux
- **Programming**: Python, HTML5, CSS3, JavaScript (React), VHDL
- **Tools**: PyCharm IDE, VS Code, QualNet (Network Simulator tool), EXATA (Network Emulator tool), Altera Quartus (EDA tool), Xilinx (EDA tool), Quartus Prime (design and simulation tool)
- **Hardware**: Raspberry Pi, Arduino
- **ML-DL frameworks**: TensorFlow, Sci-Kit learn, Keras, OpenCV

VOLUNTEER EXPERIENCE

Faculty Council Representative | Engineering Graduate Students Society | |AUG 20 – SEPT21|
Memorial University of Newfoundland

- Organized and hosted activities for students (e.g.: guest speaker events, Quiz events for students)
- Corresponded between the academic Directors and students
- Represented the student body at faculty meetings and other departmental events.