ANISH NESARKAR

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EDUCATION

Syracuse University, Syracuse, NY — May 2020
Master of Science in Computer Science, Specialization: Internet of Things, embedded systems, Robotics
Coursework: Design and Analysis of Algorithms, Software Modelling and Analysis, OOP, Internet Programming, Operating Systems

PES Institute of Technology, Bangalore, India — June 2018
Bachelor of Engineering in Electronics, GPA 3.8, Top 5% in department, Specialization: Embedded Systems and Internet of Things
Main Coursework: C, Python, Data Structures, Algorithms, Embedded Systems, Internet of Things, Computer Networks

TECHNICAL SKILLS

- **Languages**: C, C#/.NET, C++, Python, HTML5, CSS, JavaScript
- **Technologies**: Raspberry Pi, Atmel 2560, Intel Galileo, Xilinx, Data Structures, Algorithms, Microsoft Visual studio

PROFESSIONAL EXPERIENCE

***Development Intern,* Crucible of Research and Innovation Lab, PESIT,** Bangalore, India — May. 2017 - Sept. 2017

- Designed and built a standalone system to control deposition of thin film on a material
- Contributed to the programming of the microcontroller to receive the sensor values and send it to the android device
- Interacted with industry experts to understand technology employed in deposition rate controller and efficiency
- Involved in the complete cycle of PCB designing of the standalone system

Research Intern — May. 2016 - Aug. 2016

- Designed a smart device to be embedded on an electric vehicle to monitor the state of charge
- Involved in efficient and optimal programming of the microcontroller to control the sensor that provides necessary information like speed, distance covered by the vehicle and its location
- Designed test cases, demonstrated the functionalities incorporated, implemented modifications suggested by designers and the client for UI and functionality changes, and deployed the product on client's installation

***Research Intern,* Microsoft Innovation Lab,** Bangalore, India — May. 2015 - July. 2015

- Designed and built a hand gesture controlled robotic arm
- Involved and contributed to the efficient and optimal of the microcontroller which was ARM processor
- Designed a wireless network for communication between the gesture sensor and the robot via ZigBee Communication
- Built the robotic arm using recyclable materials from scratch

ACADEMIC PROJECTS

- **Lexical Scanner Code Analysis:** Building software tools for code analysis, Abstract Syntax Tree (AST) that holds the results of analysis, build several backends that can do further analysis on the AST to construct code metrics, construct type-table for various data-types, evaluate package dependencies remotely using WCF (Fall 2018)
- **Small Scale IoT Enabled Automated Greenhouse**: Designed the greenhouse, interfaced Sensors Humidity, Soil Moisture and temperature sensor, programmed Arduino and Raspberry Pi using python in Master-Slave Configuration, implemented Client-Server Network to control greenhouse parameters automatically, Internet of Things
- **Automatic Ball Shooting Robot**: Led the development team, programmed Intel Galileo, Interfaced Ultrasonic sensor and Actuators DC and servo motors, designed Algorithm for automatic ball shooting
- **Automatic Pizza Delivery System:** Programmed Robot embedded with Atmel 2560 microcontroller, designed optimum route algorithm using dynamic programming and Djikstra's Algorithm, developed robotic arm with sensors and actuators for the robot
- **Design and Implementation of Hybrid Encryption for Security of IOT Data:** Published the research paper in an International conference on Smart Technologies, Designed AES Algorithm on FPGA using Verilog coding, Designed RSA Algorithm on MATLAB software

VOLUNTEER EXPERIENCE

- **HashCode**, Co-organized a 24-hours hackathon held at PESIT — Oct. 2015
- **INCITO,** Co-organized an ideathon held at Microsoft Innovation Lab' at PESIT — Nov. 2015
- **CLAP,** An education drive to educate underprivileged children — Aug. 2016