Ishaan Thakur

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EDUCATION

CORNELL UNIVERSITY
BS in Electrical & Computer Engineering
Minor in Computer Science
Expected Dec 2020 | Ithaca, NY
Dean's List (Fall' 18)

UNIVERSITY OF ILLINOIS
BS in Electrical Engineering (transferred)
May 2018 | Urbana-Champaign, IL
Dean's List (All Semesters)
Edmund J. James Scholar

COURSEWORK

UNDERGRADUATE
Embedded Operating Systems
Operating Systems
Intelligent Physical Systems
Competitive Programming
Intro Analysis of Algorithms
Data Structures
Discrete Structures
Signals And Information

CERTIFICATIONS

Deep Learning Specialization (Deeplearning.ai)
Intro To Engg Simulation (Cornell University)
Crash Course in Data Science (Johns Hopkins University)

SKILLS

PROGRAMMING
C • C++ • Java • Python
Matlab • HTML • CSS • Javascript
LaTeX • Arm Assembly • Verilog
Arduino • MySQL • Git

FRAMEWORKS
ROS • Kafka • Pandas • Numpy
Matplotlib • React.js • Node.js • P5.js
Tensorflow

3D DESIGN AND SIMULATION
ANSYS • Inventor • Fusion 360
LabTracer • LabVIEW

INVOLVEMENT

Cornell AppDev - IOS AppDev (2018-19)
IEEE, ACSU - General Member(2018-19)
Engg Open House - Team Lead (2018)
IROBOTICS - MRDC' 21 Lead (2017-18)

EXPERIENCE

ENERGY SCIENCES NETWORK | Software Engineering Intern
May 2019 - Aug 2019 | Lawrence Berkeley National Lab, Berkeley, CA
- Working on design and implementation of high-speed data visualizer for ESnet6 High Touch Services.

AUTONOMOUS SYSTEMS LAB | Undergraduate Research Asst.
Sep 2018 – Nov 2018 | Ithaca, NY
- Integrated an Intel Real Sense RTK camera with an irobot Create2 module and provided beacon and range information over wifi to a MATLAB interface.

SWARM ROBOTIX (NOKIA HUB 88) | Software Engineer Intern
May 2018 – Jul 2018 | Nokia Bell Labs, Naperville, IL
- Managed the Sensor Software and Controls Team.
- Coded for Lidar and IMU sensors in C++, python and improved accuracy of data published to Hector SLAM as ROS messages by 20%.

BIOSENSORS LAB | Undergraduate Research Assistant
Mar 2018 – May 2018 | Urbana, IL
- Integrated GPS with different sensors in camera module and refined C++ code improving accuracy of polarization data obtained by 5%.

WAGGLENET | Undergraduate Research Assistant
Mar 2018 – May 2018 | Urbana, IL
- Developed a real time monitoring system in C++ to monitor the health of honey bee colonies. Improved the signal to noise ratio in the system by 10%.

HEXNEST | Safety and Optimization Researcher
Mar 2018 – May 2018 | Urbana, IL
- Designed and coded for sensors in C++, python required for safety testing and data interpretation for gymnastics mats. Helped increase safety index by 62%.

PROJECTS

SPACE INVADERS
- Designed a Space Invaders based I/O game in C, C++ using FRDM K64F micro-controller board and a 32x32 Adafruit RGB LED.

HEART RATE MONITOR
- Used combinational ALU to develop a microprocessor in verilog capable of executing sequential code including branching and halting logic. Displayed heart rate as an output.

SMART ALARM CLOCK
- Used Arduino Yun and Leonardo processors to design an alarm clock that alerts based on one's Google calendar and gmail. Used Temboo services to interact with calendar and mail utilities.

AWARDS

2018 First Place, ECE Pulse Design Competition, UIUC
2018 Nominated for Illinois Innovation Prize
2017 First Place, Innovation Idea Fair
2017 Among top 5 Teams, Northwestern Annual Hackathon
2017 Rank Holder, National Math Olympiad