Archit Gajjar

Contact

Info

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RESEARCH Interests • Approximate Design on Fog/Edge System

• Energy-Quality (E-Q) Tradeoff on ASIC/FPGA Design

• IoT Mesh Technology

EDUCATION

University of Houston - Clear Lake, Houston, TX

M.S., Computer Engineering GPA: 3.9/4.0

Dhirubhai Ambani Institute of Information and Communication Technology, Gujarat, India GPA: 5.6/10.0

B. Tech., Information and Communication Technology

Work

Research & Teaching Assistant

August 2017 – Present

Expected: December 2018

EXPERIENCE CENG3316 Electronics & CENG3116 Lab for Electronics & CENG5534 ADSD

Department of Engineering

University of Houston Clear Lake (UHCL)

System Developer Intern

May 2015 – October 2015

Inweon IT Innovations Pvt. Ltd. Greater Noida, India

Using Visual Studio and OpenCV, a code was developed to find the length of rice from the provided image. Later, Raspberry pi micro-controller was set up to perform the code remotely.

Intern December 2014 – January 2015

QX KPO Services Pvt. Ltd. Ahmedabad, India

For one month, gained knowledge about OSI (Open Systems Interconnection) model in the field of network and communication along with practical implementation.

SKILLS

Programming Languages:

• Verilog, VHDL, Python, C, C++

Tools:

• Arduino, Keil, LTSpice, Raspberry Pi, Beagle Bone Black, OpenCV, Vim, Latex, FPGA, NI Multisim, ModelSim, MATLAB, Vivado

- Publications A. Gajjar, X. Yang, etc., "An FPGA Synthesis of Face Detection Algorithm using HAAR Classifiers," Intl. Conference on Algorithms, Computing and Systems (ICACS2018), Accepted, 2018.
 - X. Yang, L. Wu, A.Gajjar etc., "A Vision of Fog Systems with Integrating FPGAs and BLE Mesh Network," Intl. Conference on Algorithms, Computing and Systems (ICACS2018), Accepted, 2018.
 - Y. Zhang, X. Yang, A. Gajjar, etc., "Exploring Slice-Energy Saving on An Video Processing FPGA Platform with Approximate Computing," Journal of Image and Graphics (ISSN: 2301-3699) (JIG), In Press, March, 2018.

- Y. Zhang, X. Yang, A. Gajjar, etc., "Hierarchical Synthesis of Approximate Multiplier Design for Field-Programmable Gate Arrays (FPGA)-CSRmesh System," Intl. Journal of Compt. Applications (IJCA), Vol. 180, No. 17 PP. 1-7, Feb. 2018.
- A. Gajjar, Y. Zhang, and X. Yang, "Demo Abstract: A Smart Building System Integrated with An Edge Computing Algorithm and IoT Mesh Networks," The Second ACM/IEEE Symposium on Edge Computing (SEC2017), Article No. 35, Oct. 2017. (doi>10.1145/3132211.3132462).

EVENT • PRESENTATIONS

- A. Gajjar, X. Yang, "Poster presentation A Smart Home/Building System Integrated with An Edge Computing Algorithm and CSRmesh Networks," Houston Robotics and AI Day, July, 2017.
- A. Gajjar, X. Yang, "Poster presentation A Wide Area IoT Mesh Network With Edge Computing," IEEE Innovation and Automation Conference, Guilruth ctr., NASA., October, 2017.

ACADEMIC PROJECTS

• Low Cost Security System Using Off the Shelf Components January 2016 – April 2016

A security system capturing image of an intruder and informing to the designated person.

- Research Intern May 2016 July 2016 Gained knowledge of Cadence Encounter, tickle files, optimization.
- Surveillance Bot January 2015 April 2015 A live video stream from a manually controlled surveillance robot.
- 5-Stage Pipeline processor

 Basic 5-stage pipelined processor development.

 July 2014 November 2014

Honors and Awards

- Scholarship Award, Dr. Ted Leibfried Legacy, UHCL, July, 2018
- Graduate Student Ambassador, College of Science & Engineering, UHCL (2 Students out of CENG Program)
- Phi Kappa Phi Honor Society Invitation, UHCL, March, 2018
- Research/Teaching Assistant Scholarship, UHCL, 2017-2018
- NSF Student Travel Grant Award from SEC, 2017
- Leadership Honor, Omicron Delta Kappa(ODK), Hilary Jo Karp Circle Honor Society, November 2017

VOLUNTEER EXPERIENCE

• International Student Orientation Leader, UHCL

2017

• IEEE Member

2013 – Present

- Leader of Special Interest Group on Microcontrollers, IEEE SB DA-IICT
- I'Fest, Mentor, IEEE SB DAIICT
- TENSYMP'15 Volunteer, Region 10 IEEE International Conference, India
- I'Fest, Event Coordinator
- Teaching Assistant, Workshop on Embedded System and Arduino, PDPU, India
- Hostel Management Committee

2013 - 2015

• Anti-Ragging Committee

2015 - 2016