## Archit Gajjar

Contact

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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

Expected: December 2018 GPA: 3.94/4.00

M.S., Computer Engineering

Dhirubhai Ambani Institute of Information and Communication Technology, Gujarat, India

B. Tech., Information and Communication Technology GPA: 5.62/10.00

Work

## Research & Teaching Assistant

August 2017 – Present

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 QX KPO Services Pvt. Ltd. Ahmedabad, India December 2014 – January 2015

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), Under Review, 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), Under Review, 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

- 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

- Graduate Student Ambassador, College of Science & Engineering, UHCL 2018
- International Student Orientation Leader, UHCL

2017 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

• IEEE Member

2015 - 2016