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   Expected: December 2018
M.S., Computer Engineering   **GPA: 3.94/4.00**

Dhirubhai Ambani Institute of Information and Communication Technology,
Gujarat, India   2016
B.Tech., Information and Communication Technology   GPA: 5.62/10.00

WORK
EXPERIENCE

Research & Teaching Assistant   August 2017 – Present
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),
  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**   July 2014 – November 2014
  Basic 5-stage pipelined processor development.

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 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