

# Linjia Chang

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## EDUCATION

### University of Illinois at Urbana-Champaign, USA

- Jan. '15 – Dec. '16 **M.S.** Electrical and Computer Engineering *GPA: 3.76/4.0*  
Thesis: Changing Edges in Graphical Model Algorithms [Link]  
Advisor: Lav R. Varshney
- Aug. '11 – Dec. '14 **B.S.** Electrical Engineering **Minor:** Computer Science *GPA: 3.71/4.0*  
**Honor:** HKN, Graduated with Honors as James Scholar, Dean's List
- Aug. '13 – Dec. '13 **Lund University, Lunds Tekniska Högskola, Sweden**  
Study Abroad Engineering Program

## SKILLS

- Languages Python, C, C++, MATLAB, Assembly, Tcl, PHP, Sql, mbed, VHD, Java, VB, L<sup>A</sup>T<sub>E</sub>X
- Areas Cloud, Machine Learning, Wireless, Embedded System
- Apps. & Sys. Kubernetes, Docker, Git, SVN, Perforce, Linux, Jenkins, Eagle, Mentor Graphics, ModelSim
- Hardware FPGA, JTAG, ARC, XBee, PCB design, logic analyzer, oscilloscope, soldering

## EXPERIENCE

- Dec. '18 – Present **Software Engineer - Cloud Software Engineering**  
**Intel Corporation – Hillsboro, OR**
- Create use cases, demos, and benchmarks using cloud open source software featuring Intel Architecture (CPU, FPGA, GPU, VPU, PMEM) for CSP, Industrial Edge, IoT, Automotive, Smart City, and Smart Retail scenarios
  - Developed Windows Python driver for FPGA used by quantum computer for Intel Labs
  - Developed an SDK for athlete pose estimation and biometric analysis using deep neural network model with OpenVINO and Gstreamer for Olympics Technology Group
  - Redesigned and maintain Intel in Kubernetes online documentation: [<https://01.org/kubernetes>]
  - Lead sponsor showcase (technical demo selection, coordination, event prep) and present at open source conferences: KubeCon + CNC, OpenInfra NA, OSS/ELC NA
  - Mentored multiple interns and junior software engineers
- Mar. '17 – Dec. '18 **Firmware Engineer - Bluetooth Core Product**  
**Intel Corporation – Hillsboro, OR**
- Led a Bluetooth(BT) product based on ARC architecture, discuss feature development plan, monitor validation progress, and execute release cycles; achieved beta-quality at alpha timeline
  - Key contributor to new BT core for upcoming Windows platforms; provided bootloader candidates, verified FW download via USB and UART, patching strategy, and etc. on FPGA and Simics Virtual Platforms, and supported multiple board power-on
  - Owner of a new multiple antennae selection feature to achieve high RSSI gain and low power consumption, and three quality enhancement projects: scheduling, exception cleaning, and Bluetooth Qualification Program
  - Debugged complex hardware/software/RF issues reported by customers; provided strong support with overseas team over two mo. under high pressure and ensured successful WiFi co-existence and power saving features enablement
  - Outstanding performer and was promoted to Grade 7 at the first annual review

- Jan. '15 – Dec. '16 **Graduate Research Assistant**  
**Coordinated Science Laboratory – Urbana, IL**
- Researched on intrinsic robustness of iterative decoders for error-correcting codes to transiently and permanently miswired decoding circuits; presented work at 600+ attendant IEEE conference
  - Used complex networks and data analysis on graphs to understand the science of culinary practice and human sensory perceptions
  - Developed probabilistic models for commodities' return rate using survival and failure analysis and machine learning
  - Assisted in workshop planning, delivered presentations at conferences, and mentored new graduate students
- May. '16 – Aug. '16 **Research and Development Intern** Telefónica I+D – Barcelona, Spain
- Jun. '15 – Aug. '15 **Embedded Software Engineer Intern** Silicon Labs Inc. – Oslo, Norway
- May. '14 – Aug. '14 **Firmware Engineer Intern** Silicon Labs Inc. – Austin, TX
- Jun. '13 – Aug. '13 **Software Engineer Intern** Wellspring Inc. – Chicago, IL
- Jan. '12 – Dec. '14 **Undergrad Teaching Assistant** ECE Illinois: ECE 110, ECE 210, ENG 100

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## PUBLICATIONS

- Journal** L. Chang, A. Chatterjee, and L. R. Varshney, "Performance of LDPC Decoders with Missing Connections," IEEE Transactions on Communications, Feb. 2017. [Link]
- Conference** L. Chang, A. Chatterjee,, and L. R. Varshney, "LDPC Decoders with Missing Connections," in Proceedings of the 2016 IEEE International Symposium on Information Theory (ISIT), pp. 1576–1580, Barcelona, Jul. 2016 [Link]
- Presentation** L. Chang and L. R. Varshney, "World Culture of Food Texture Networks," Food and Data Workshop: Interoperability through the Food Pipeline, Urbana, Sep. 2016 [Link]

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## PROJECTS

- Designed and implemented a parking system with inductive sensors, wireless modules, database, and web application to help find the nearest street parking spots for managing curb spaces. **(Senior Design Teamwork Award)**
- Built a robot trashcan that can locate an object, calculate its landing position, and catch it using Arduino and ultrasonic sensors, and presented at Engineering Open House.
- Built a self-navigating car running along a colored track using Arduino, CA modules, BJTs, and infrared sensors.
- Developed an Android app that is able to read an image of sheet music and play it on Nexus 7 tablet.
- Built a website that allows people to car pool and share ride in Chicago area on MySQL and PHP framework.

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## LEADERSHIP AND SERVICES

- Jan. '17 – Present **Volunteer:** Women Who Code, STEM events, Food bank, First Lego Robotics,
- Aug. '11 – Dec. '16 ECE Student Advancement, CSL Student Conference Committee, Engineering Student Alumni Ambassador, Women in ECE, IEEE UIUC Branch