Yuqing (Eugenia) Lin

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Objective: Ph.D. in Electrical Engineering

EDUCATION

Beijing Institute of Technology (BIT), China Sep 2016- Jun 2020

- B.Eng. in Electronics and Communications Engineering
- **GPA: 3.67/4.0, Major GPA: 4.0/4.0** (Ranking: Top 10 out of 250+ students, top 5 among female students)
- Core Courses: Spread Spectrum Signal Processing and Application (100) /Digital Circuit (96)/ Information theory and coding (95) / Theoretical Basis of Communication Network (92)/Analog Circuit (92)/ Communication Circuit & Systems (92)/ Digital Signal Processing (91)/ Theory of Electromagnetic Field (91)/ Signals and Systems (90)

PUBLICATIONS AND PATENTS

1. **Yuqing Lin**, Y. Lin, J. Yu. (2019, May). Defect Detection System for Optical Element Surface Based on Machine Vision, In International Conference on Communication Engineering, Computer Science, Artificial Intelligence (pp. CCA 888), 2019 IEEE International Conference on Information Systems and Computer Aided Education（ICISCAE 2019）
2. **Yuqing Lin**, Hai Pei, A Reminder Device for Card Safeguard, Chinese Invention Patent, Patent Number: ZL 2018 2 0136659.X, Date: 2018.01.26
3. H. P., H. Y., **Yuqing Lin**, J. X., L. Z., B. Z., Multifunctional desk lamp based on Embedded System, Chinese Invention Patent, Patent Number: ZL 2018 2 2135479.6, Date: 2019.07.19
4. Hai Pei, Jieyu Xie, **Yuqing Lin**, An Improved Door Lock Based on Traditional Door Handle, Chinese Invention Patent, Patent Number: ZL 2018 2 0028718.5, Date: 2018.01.08

RESEARCH AND PROJECT

Study on Framelets with Applications to Signal Processing | Research Intern Jun 2019-Oct 2019

Advisor: Professor Bin Han(coauthor:I.Daubechies) | Department of Mathematical and Statistical Sciences, **University of Alberta**

- Applied quasi-tight framelet to signal and image denoising, which performs as well as tight framelets but is easier to generate
- Implemented Image Inpainting using iteration of framelet threshold smoothing, which can restore an 80+% image from prior data less than 30% in general
- Designed a new method for image edge analysis using box spline quasi-tight wavelet framelet, which is able to detect Dirac edges and hidden edges better than shearlet, Canny, Chan-Vese methods and is also robust against noise

Land and Air Amphibious Reconnaissance Vehicle | Team Leader, Key Developer Dec 2017-Present

Advisor: Professor Yingjie Wu | College of Mathematics and Computer Science in Fuzhou University & Associate Professor Yanjun Zhang | Institute of Microelectronics Technology, BIT

- Constructed a land and air amphibious vehicle for reconnaissance and transportation, which won outstanding prize of "Challenge Cup"
- Created a new vehicle structure— long arms, large propellers and stabilized platform, and continuous tracks
- Achieved more than twice the duration by 6S battery and APM 2.8's control to 2 modes, compared to similarly sized drones

Robotic Interoperability Systems | Research Assistant Jun 2018-Jan 2019

Advisor: Associate Professor Xiang Xie | Research Institute of Communication Technology, BIT

- Completed multi-robot interoperability system by UWB localization and tested it for the World Robot Conference (2018)
- Produced multi-robot sound source following system, which is especially useful for helping fallen elders in hospitals.
- Developed STM32 embedded applications and revised the upper monitor with Qt5 to specialize the system
- Developed a 3-ball positioning coordination calculation algorithms using Python

Intelligent Anti-lost Reminder for Cards | Team Leader, Key Developer Sep 2016-Sep 2017

Advisor: Professor Yingjie Wu | College of Mathematics and Computer Science in Fuzhou University & Instructor Xinghua Wang | Microsystems and Integrated Circuits club, BIT

- Completed a device that prevented people from losing cards and applied it in dormitory bathrooms (reaching over 500 people
- Designed 3 modules (sensor, process and reminder) using SystemView and soldered the 3-D circuit
- Earned first-author patent rights for the real product model (2018)

HONORS/AWARDS

- China Electronics Technology Instrument (Ceyear) Scholarship (Top 4 out of 1700) 2019
- Outstanding Winner of "Challenge Cup" National Undergraduate Competition in BIT area(Top 2% out of 2000+) 2019
- Excellent Student of BIT (Top 3% out of 1700) 2018, 2019
- The Second Prize for International BRICS-Young Makers Competition 2018
- First-class scholarship of BIT (Top 2% out of 250) 2018
- First place in Beijing University Martial Arts Group Competition 2018

LEADERSHIP AND ACTIVITIES

BIT ENACTUS | VP Technology Sep 2016-Jun 2018

- Recognized as Enactus China Active Student (2016) and led 2 teams to participate in Enactus World Cup in Beijing

Student Union, BIT | Minister of International Department Sep 2016-Oct 2017

- Organized international activities, including the First International Culture Festival (5000+ people from 50+ countries)

"One Hour After Class" in Beijing | Volunteer Teacher, Star Volunteer Oct 2016-Jun 2017

- Responsible for teaching science and guiding projects for disabled children and the children of migrant workers

SKILLS

Programming Languages: MATLAB, Python, C, Verilog/VHDL, Assembly language
Tools: Multisim, HFSS, Keil, Vivado, Modelsim, Quartus, SystemView, Origin, Qt4, latex, Microsoft Office
Standard English Tests: GRE: V156 Q169 AW3.5 TOEFL: Total 101 IELTS: Overall 7.5 (R8+L8+S6.5+W6.5)