Yuan Zhou

Department of Electronic Engineering
Tsinghua University
Rm 515A, Building 1,
Zijing Dormitory, Tsinghua University
Haidian Province, Beijing 100084

https://www.yuanzhou.space
+86 138-1222-3088
zya_andy@163.com

Education and Awards

08/2014 – 06/2018 **Tsinghua University**
Beijing Bachelor of Engineering in Electronic Engineering
• Major GPA: 3.5/4.0
• Core Courses: JAVA, C/C++, Data and Algorithms, Databases, Theory and Practice of HCI, Operating Systems, Digital Logic and Processors, Digital Signal Processing, Communication and Network, Electronic Circuits and Systems
• Programming: JavaScript/CSS/HTML, C/C++/C#, MATLAB, Arduino, Java (Android programming), Python

2017 **Best Paper Runner Up** in SmartComp, for the Paper BitID (2^{nd}/140)

2016 **The Third Prize** of GIX Innovation Competition (4 out of over 200 competitors)

2015 **Tsinghua Scholarship** (1 out of 250 undergraduates in the department)

Research Experience

07/2017 – present **chat.codes, University of Michigan, Research Assistant (RA)**
Ann Arbor, MI Advisor: Steve Oney, Assistant Professor at School of Information
• Initiated a web-based system which enabled more effective code discussion and scalable remote programming support, and allowed easy reference to regions of code to tightly couple discussions with the codebase being discussed
• Enabled code edit tracking alongside the messages to give other developers enough context to understand past discussions
• Built a Chrome extension to detect and modify code on a current tab, which supported a seamless synchronization to the chat.codes system

05/2017 – present **Stretchable RFID, Tsinghua University, RA**
Beijing Advisor: Yuanchun Shi, Professor of Department of Computer Science
• Built a software system in C# which used a serial port to manipulate a RFID reader to work at specific frequencies and supported real-time detection of tag information, including tag ID, working frequency, RSSI and phase
• Conducted research on the function of the system extracting features from time-series data and apply a SVM classifier to measure the length of the RFID tag
Graduate Student and researcher

01/2017 – 04/2017 **BitID: Easily Add Battery-Free Wireless Sensors, Tsinghua University, RA**
Beijing Advisor: Yuanchun Shi, Professor of Department of Computer Science

• Contributed a paper, BitID: Easily Add Battery-Free Wireless Sensors to Everyday Objects, to SmartComp 2017, which got the Best Paper Runner Up
• Proposed a passive RFID-based sensing technique that can be easily made using off-the-shelf tags
• Designed the BitID which is able to differentiate between two states of the object to which it is attached with a simple shorting mechanism
• Demonstrated the application of BitID for the real-time status detection of household objects in a home security system and built an Android App enabling users to check remotely

08/2016 – 12/2016 **The Capture of the Spread Spectrum Signal of Beidou System, Tsinghua University, RA**
Beijing
Advisor: Zheng Yao, Associate Professor of Department of Electronic Engineering

• Distinguished the signals of the satellites from the certain data, using the Fourier Transform Algorithm with MATLAB
• Improved the accuracy of system by adjusting parameters and the accuracy rate reached to 97.0%

08/2016 – 12/2016 **Instrument Playing Helper: TRIO, Tsinghua University, RA**
Beijing Advisor: Yuanchun Shi, Professor of Department of Computer Science

• Designed a portable device which enhances the instrument playing experience by using a one-button interaction via the player's foot
• Built a circuit prototype and implemented a matching iOS app to support its auto-flip and haptic metronome functionality

Academic Projects

07/2016 – 09/2016 **Facial Recognition System**
Beijing Advisor: Yuantao G, Associate Professor of Department of Electronic Engineering

• Designed an automatic system for face recognition based on skin recognition using MATLAB which improved system accuracy by adjusting parameters;
• The accuracy of recognizing pictures with certain features reached 96.5%

09/2015 – 01/2016 **Design of Electronic Circuits**
Beijing Advisor: Guolin Li, Associate Professor of Department of Electronic Engineering

• Involved in a series of hands-on lab sessions to build and operate circuits
• Gained experience in circuit and component modeling, amplifiers, filters and signal detection and processing

Leadership

09/2015 – 08/2016 **Information Department, Tsinghua Art Troupe, Minister**
Beijing

• Responsible for collecting and maintaining eight groups' information regarding size, budget and public awareness
• Increased recognition and improved efficiency by advising on the team operation, based on the collected data