

Zheyuan Xie

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EDUCATION

**School of Electronic Information and Electrical Engineering,
Shanghai Jiao Tong University, China**

Sep 2014 – Jul 2018

- B.S in Automation, Overall GPA: 85.0/100, Major GPA:90.3/100
Core courses: Principle of Automation Control(87) / Signals & Systems(93) / Digital Signal Processing(96, Top5%) / Digital Circuit(86) / Analog Circuit(95, Top2%) / Introduction to Robotics(95) / Power Electronics(92, Top10%) / Digital Image Processing(97, Top3%) / Pattern Recognition(91) / Embedded System(93)
- TOEFL: Total 105 (Reading 29, Listening 29, Speaking 22, Writing 25)

RESEARCH EXPERIENCE

Autonomous Robot Laboratory, SEIEE, SJTU | Research Assistant

Feb 2017 – Present

- Project: Indoor Navigation of Unmanned Aerial Vehicle
- Advisor: Prof. Hesheng Wang (Department of Automation, SEIEE, SJTU)
 - Performed system identification on several commercial drones with ROS and set up Gazebo simulation.
 - Wrote an obstacle detection algorithm for on-board binocular camera.
 - Designed and implemented Model Predictive Control for UAV path tracking.

Computer Vision & Pattern Recognition Group, SEIEE, SJTU | Undergraduate Research Student

- Project: Vision Based Cooperative Payload Transportation of Multiple UAVs Nov 2016 – Present
- Advisor: Prof. Yue Zhou (Department of Automation, SEIEE, SJTU), Dr. Xiang Li
 - Designed and manufactured an attached device which enables drones to pick up payload.
 - Set-up the indoor optical motion tracking system for the experiments.
 - Completed target searching based on vision and trajectory planning.

Transportation Research Center, NAOCE, SJTU | Research Assistant

Sep 2014 – Sep 2015

- Project: Design of Wearable ECG Monitoring Device
- Advisor: Dr. Yuanbin Song (Department of International Shipping, NAOCE, SJTU)
 - Designed and built a wearable ECG monitor with digital signal processing chips, micro-controller and electrodes.
 - The device measures potential difference between two hands and uplink digital signals via a bluetooth serial port.
 - The project received an outstanding rate among PRPs of that year.

OTHER PROJECT EXPERIENCE

Automated Jigsaw Puzzle Solver, Course project of AU326

Oct 2016 – Jan 2017

- Proposed an integrated solution based on OpenCV and open-source hardware (Arduino-based robotic arm).
- Achieved automated completion of complex jigsaw puzzle game on touchscreen android or iOS device.
- My solution ranked the first by performance (both time and accuracy) in the in-class competition.

Rocket System, Amateur rocketry project

Jul 2009 – Dec 2013

- Completed an amateur rocket project as one of my long term hobby.
- Designed and built a series of sugar-fuel solid rocket motor, rocket aerodynamics, electronic launch platform and on-board control system.
- Won the top prize in the 2013 national awards program for future scientists.

WORK EXPERIENCE

Hangzhou MeiQi Technology Co.,Ltd., Hangzhou, Zhejiang, China

Aug 2016 – Sep 2016

- Researcher & Programmer, Department of R&D,
 - Did an Internship at the startup company.
 - Preprocessed 3-D tooth model and generated attachment configuration according to the shape of the teeth, using Meshlab, Qt, C++.
 - Conducted technical research and market survey for the company's planned new product – intraoral scanner.

AWARDS & SCHOLARSHIPS

- **Third Level scholarship of Shanghai Jiao Tong University**

Oct 2015

This is the scholarship for the students in top 15% rank

- **2nd prize in Contemporary Undergraduate Mathematical Contest in Modeling**

Sep 2016

- Our team designed a model to analyze moored buoy in various circumstances
- This award is for Top 6.5% team, we also won 1st prize in Shanghai Region.

SKILLS & INTERESTS

Programming Languages: C/C++, Python, MATLAB, Shell Script

Office Applications: Adobe Photoshop, L^AT_EX, Microsoft Office

Languages: Chinese(Native), English(Fluent)

Interests: amateur rocketry, amateur radio, aviation & aerospace, algorithm trading, cyber security