XIAOZHENG (JUDY) XU

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EDUCATION

OLIN COLLEGE OF ENGINEERING, Needham, MA   May 2018
Robotics Engineering, GPA 3.80/4
Relevant courses: Controls, Fundamentals of Robotics, Data structure, Software Design, User Oriented Collaborative Design, Dynamics, Mechanics of Solids and Structures, Principles of Engineering

EXPERIENCE

Summer Research Position in Astronomy, Toronto, ON   May-Aug 2016
Under the direction of **Prof. Ue-Li Pen** at **Canadian Institute of Theoretical Astrophysics:**

- Researched about the emission mechanisms of the crab pulsar using its nebula as a galactic telescope.
- Used Python and Linux to process signals at different radio telescopes around the world.
- Found that the crab's enigmatic pulses might be emitted from regions separated more than 500km in the pulsar's magnetosphere.

Modelling and Simulation course Assistant, Needham, MA   Fall 2015

- Helped students modelling with Matlab by answering questions and guiding them in projects and class activities.

Localization Intern, Dassault Systems, Waltham, MA   Summer 2015

- Worked on the user interface of Solidworks in 13 different languages.
- Solved customer and QA generated service pack reports by investigating the bugs in the software. Wrote corresponding Fix-requests to translation vendor.

PROJECTS

Fundamental of Robotics: Fall 2016

- Design, fabricate and code a robotic car to race around campus using LIDAR, camera and ROS.

Research in autonomous fixed wing air vehicles   Fall 2016

- Design and fly test fixed wing airplanes to do loiter maneuvers and autonomous landing.
- Use these planes to take an aerial map of local area.

Software Design   Spring 2016

- Designed and implemented Interactive Calculus using python and open CV.
  http://xiaozhengxu.github.io/Interactive-Calculus/index

User Oriented Collaborative Design: Spring 2016

- Interviewed and had co-design sessions with minimalists (people who live with less intentionally).
- Designed a minimalist Grocery Store that acts as a community center for minimalists to meet and reach out to non-minimalists.

Principles of Engineering   Fall 2015

- Designed, prototyped and fabricated Azimuth, a table top robot that fetches salt and pepper.
  http://poejectazimuth.weebly.com/

SKILLS

- **Programming and software:** Python, java, Matlab, Linux, Arduino, C++, ROS
- **CAD and Rapid Prototyping:** Solidworks CSWA-certified, 3D printing
- **Languages:** English(fluent), Mandarin(fluent), French (advanced)
- **Machine Shop:** trained on mill, lathe, drills, saws and sanders

LEADERSHIP AND ACTIVITIES

- Kitchen club president: organize baking events and buy/maintain equipment