

BAI Fan

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EDUCATION

Northwestern University, Evanston, United States
MSc in Robotics

Sep 2015 – Present

University of Nottingham, Nottingham, United Kingdom
BEng in Electrical and Electronic

Sep 2011 – Jul 2015

- GPA: 3.6
- Head's Scholarship 2011 – 2012
- Dean's Scholarship 2012 – 2013

ACADEMIC EXPERIENCE

MoveIt 8 DOF Motion Planning for youBot

Jan 2016 – Apr 2016

- A software architecture project focused on customizing MoveIt to be able to plan for both arm and drive trajectory

Baxter Pick and Place

Nov 2015 – Dec 2015

- Used canny algorithm for Baxter's camera to recognize red balls
- Implemented inverse kinematics to make Baxter's arm pick the ball and place it in the tray

Machine Dynamics Project

Nov 2015 – Dec 2015

- Used Mathematica to simulate a ball rolling in a rotatable 3D maze in real time

Robot Gesture Control

Sep 2014 – Jun 2015

- Made an Aldebaran Nao robot to mimic human gesture by interfacing it with Windows Kinect

Reluctance Motor Control

Jan 2014 – May 2014

- Designed the hardware and developed the algorithm to control a reluctance motor

WORK EXPERIENCE

Robotics-Unlimited, Pensacola, Florida

Jun 2016 – Sep 2016

- Worked on "Gesture Controlled Car" project including writing IMU algorithm, communication protocol and hardware interface
- Participated in "Robox" project and implemented self-balancing algorithm

Oracle, Hangzhou, China

Jun 2014 – Aug 2014

- Assisted the team in the research of the realization of the anti-collision algorithm in RFID system
- Collected and read 20 papers based on the stochastic algorithm (ALOHA) and helped the team come up with the optimized dynamic frame slotted ALOHA algorithm

Institute of Computing Technology, Chinese Academy of Science, Ningbo, China

Jun 2012 – Aug 2012

- Worked on "Posture Detector project" and wrote IMU algorithm detecting the orientation of the device

LEADERSHIP

Minister of Activity Department, Campers Ambassador, University of Nottingham

Sep 2011 – Jun 2013

- Successfully organized the "Campus Open Day" which received more than 5000 visitors across the country for campus tour in May 14th, 2013

SKILL

Proficient in C and C++, **Good** at Python and Matlab; Have several practical experience with Java, Mathematica and assembly code; **Familiar** with Arduino

PORTFOLIO

For more information, please see my portfolio at: <http://seanbai2008.github.io/>