

ABHISHEK PATIL

224-766-9204

patilnabhi@gmail.com

<http://patilnabhi.github.io/portfolio>

EDUCATION

- 1) Northwestern University (NU), Evanston, IL**
M.S. in Robotics Engineering (Expected graduation – Dec 2016), (Sep 2015 – Present)
 - Cumulative GPA: 3.96/4.0
- 2) National University of Singapore (NUS), Singapore**
B.E. in Mechanical Engineering (Honors), (Aug 2010 – Jun 2014)
 - Specialized in Product Design
- 3) University of Western Ontario (UWO), Canada**
Student Exchange Program, (Jan 2013 – May 2013)
 - Collaborated and presented on two projects with students from UWO, which allowed me to gain deeper understanding of the Canadian culture and greater confidence in working in a diverse setting
- 4) Catholic Junior College (CJC), Singapore**
GCE A Level Certificate, (Jan 2006 – Dec 2007)
 - Awarded outstanding CCA Achievement Award

WORK EXPERIENCE

- 1) DynaOptics Pte. Ltd. – Singapore**
Camera Module Engineer, (May 2014 – Aug 2015)
 - An innovative team of 10 developing a unique optical zoom lens technology for mobile devices
 - Designed and produced 2D and 3D drawings of a camera module and customized jigs and fixtures
 - Interacted closely with suppliers and potential customers
 - Supported in image testing set-up, calibration and data collection of imaging tests
 - Selected by the CEO to address a crowd of over 50 engineering students at a local University for a career talk
 - Applied Design for Manufacturing (DFM) and Design for Assembly (DFA) methods using 3D softwares such as CETOL 6σ, Abaqus FEA and Solidworks 2014

PROJECTS EXPERIENCE

- 1) TurtleBot SLAM, NU** (Jan 2016 – Mar 2016)
 - Implemented ROS, RGB-D SLAM, OpenCV and machine learning to program TurtleBot robot to navigate it in an unknown environment using hand-gestures
 - Applied path planning algorithms such as Dijkstra's algorithm coupled with ROS' Dynamic Window Approach (DWA) path planner to optimize navigation of TurtleBot
- 2) Baxter Pick 'n' Place, NU** (Nov 2015 – Dec 2015)
 - Collaborated with teammates on a Robotic Operating System (ROS) project to program Baxter robot to carry out pick and place of different sized objects
 - Applied motion planning, obstacle modelling, robotic manipulation and image processing algorithms using ROS tools such as MoveIt!, Rviz and OpenCV
- 3) Innoventure Competition, NUS** (Aug 2013 – Mar 2014)
 - Led a team of three students to propose a solution and business plan and develop a prototype for a real-life problem by Jurong Town Corporation (JTC), securing top position out of six participating groups

4) Robotics Club, Catholic Junior College (CJC)

Vice-President,

(Aug 2006 – Jul 2007)

- Led teams in 4 robotics competitions, namely, Singapore Robotic Games 2007, 17th Inter-School Micromouse Competition, Singapore Robo Grand Prix (F1 Masters Super League) and Singapore Robo Grand Prix (Temasek Challenge), and won 3 Champion trophies and a 2nd Runner Up trophy, respectively
- Participated in Singapore Robo Grand Prix competition and won 2 Merit Award trophies in the F1 Masters Super League and TP Challenge JC/ITE categories, respectively

LEADERSHIP & VOLUNTEER EXPERIENCE

1) NUS Entrepreneurship Society, NES

Member,

(Jan 2012 – May 2012)

- Organized two entrepreneurship sessions which attracted a turnout of about 300 students

2) NUS Mechanical Engineering (ME) Camp Committee

Member,

(Jan 2012 – May 2012)

- Brainstormed, proposed and coordinated team-building activities for new students

3) National Service (NS), Singapore

Combat Medic,

(Apr 2008 – Feb 2010)

- Developed leadership, team-building skills and cross-cultural bonding
- Collaborated with Taiwanese and Thailand army personnel to attend to more than 30 patients per night during a medical cover attachment

4) Chingay Parade 2007, Singapore

Volunteer,

(Nov 2006 – Feb 2007)

- Interacted with students from various schools across Singapore, from different cultures
- Learned that even just one person can make a difference when it comes to working in groups to organize a huge event

5) Sentosa Outing with Youths (Mercy Relief), Singapore

Organizer,

(Aug 2006 – Nov 2006)

- Organized recreational activities for less fortunate children on Sentosa Island
- Learned the importance of equality and sustainability in today's society of rapid advancements

TECHNICAL SKILLS

- Proficient in ROS, Python, C, Embedded Systems/Mechatronics, PCB design, OpenCV, Git, Github, Markdown, Mathematica, CSS, Jekyll, HTML, Solidworks, CETOL 6σ, Rhinoceros 3D, Grasshopper, MS Office Suite, Windows, Linux
- Familiar with C++, MATLAB, Gist, Java, Ruby, Abaqus, Adobe Dreamweaver/Flash/Photoshop

OTHER COMPETENCIES

- Proficient in English, Marathi and Hindi languages
- Enjoy outdoor sports such as badminton, swimming, cycling and table-tennis