Akash Mehta

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D.O.B – 17th September 1993

Objective: - Gain experience in industrial level Technical and Management skills that are directly related to Computer Engineering in the fields of Automation/ Software Development/ Algorithms and Data structures.

EDUCATION

Boston University, Department of Electrical and Computer Engineering — GPA – **3.74/4** — Jan 2018
Master of Science in Computer Engineering

Manipal University, Manipal Institute of Technology — GPA – **7.4/10** — May 2015
Bachelor of Technology, Mechatronics Engineering

TECHNICAL SKILLS:

Programming Languages: C, C++, Python
Hardware Description Languages: Verilog
Circuit Design and Simulation Software: KiCAD, Proteus
Framework: ROS
Operating Systems: Linux, Windows
CAD Software: SolidEdge, ProE, AutoCAD
Areas of Experience: Path-Planning and Automation, Software Development, Embedded applications, Machine Learning.

RELEVANT EXPERIENCE:

- **Path Planning for Self-Driving vehicles/robots (Position – Research Assistant for Boston University) Feb2017 - Present**
  Part of a team working on research and development various applications pertaining to self-driven vehicles/robots. Responsible for Path-Planning algorithms. Worked with RRT, A* and Greedy, along with their variants. https://github.com/BU-STRIDE-Lab/Racecar/tree/master/navigation/Path_planning
- **Genetic Algorithm for Simulating Fail Scenarios for planning algorithms (Position – Research Assistant for Boston University) Feb2017 – Present**
  Part of a team working on research and development various applications pertaining to self-driven vehicles/robots. Worked on creating an algorithm, using Genetic Mutation, for an adversarial system, that generates paths designed to cause a planning algorithm to fail.
- **Inter-Communication for Path prediction of automated vehicles (Curricular Requirement ME740): Feb2017 - May2017**
  Individual Masters project for generating a model for communication protocols in a completely automated traffic grid. This project mainly focused on Communication protocols and Path Planning Algorithms. – https://github.com/Akuman22/FullyAutomatiedGridControl

ADDITIONAL EXPERIENCE

- **MPU-9250 Firmware :**
  Worked on coding firmware for the IMU, MPU - 9250. Created functions for Master-Slave I2C control of the Magnetometer, and the DMP, ICM – 20648.
- **High Response Image-Tracking system:** Developing a highly-responsive and real-time embedded application for object tracking with a Python coded predictive Control Algorithms using Gumstix Verdex and a ROS framework.
- **Machine learning algorithm to analyze lung cancer through CAT scans:** Using various Neural Network concepts to develop a classifier for recognizing Cancer tissue in lung CT scans. (Rank 350/1972) - https://www.kaggle.com/c/data-science-bowl-2017
- **Wireless Automated Electronic Queuing System:** Developed an automated polling system for multi-node to single node master slave queuing system.
- **Gesture Controlled Robotics:** Made a gesture controlled car using IMU - MPU-6050 with wireless control using XBEE.

Wingfotech Pvt. Ltd. **R&D Head** **New Delhi, India** **(Jan 2016 – May 2016)**

- Held workshops all over India for Engineering students on STEM topics – Robotics, IOT, Solar Power, Android App. Dev.
- Made Embedded Projects that pertained to educational purpose – Gesture Controlled Car, Sun Tracking Solar Panel, Bluetooth controlled Home Automation, Biped, LDR Keyboard
- Made Videos on these projects for marketing purposes (www.facebook.com/pg/wingfotech/videos/)

RS Barcoders Pvt. Ltd. **Intern** **New Delhi, India** **(Jan 2015 – May 2015)**

- Part of my Undergraduate Final Year Project. Developed Wireless Automated Electronic Queuing System that was required by the Sikkim Manipal General Hospital.
- Was tasked with the R&D of the project, along with the procurement and Manufacturing of the parts.

Edubotix Innovations **Industrial Training** **Ahmedabad, India** **(June 2014 – Aug 2014)**

- Industrial Training on Micro-controllers and Robotics.
- Worked on multiple projects – Biped, MPU - 6050 Gesture Controlled Bot, Wall follower, People counter, etc.
- Worked in Mechanical Lab for manufacturing Prototypes (Using Lathes, Drills, etc.)

MISC. EXPERIENCE

Boston University **Teaching Assistant** **Boston, MA** **(Nov 2016 – May 2017)**

- Teaching Assistant for an undergraduate course, EK210 - Intro to Engineering Design
- Mentoring students in basic concepts of Embedded, Electrical and Electronics along with assisting them with their projects.

EXTRA CURRICULAR

IEEE General Secretary: IEEE student branch Manipal. In charge of organizing over 200 students for National Level events. **(Sept 2013 – Sept 2014)**

Technical Head: IE Mechatronics student branch Manipal. In charge of holding events and Workshops for Students **(Sept 2013 – Sept 2014)**

Ek Sangharsh Core Team: Delhi based NGO. Held events to raise money to provide for Local orphanages. **(Sept 2013 – Sept 2014)**