SWATHI G NAYAK

CONTACT

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EDUCATION

Masters of Science in Embedded Systems(Expected) Aug 2015 — May 2017
University of Pennsylvania

Bachelor of Engineering in Instrumentation Technology Jul 2010 — Jul 2014
B.M.S College of Engineering, Bangalore, India

SKILLS

Programming languages – Embedded C, Java, Python, CAPL scripting
Tools – Vector tools (CANoe, CANalyser), MatLab, LabVIEW, Android Studio

WORK EXPERIENCE

Delphi Automotive Systems Pvt. Ltd, Bangalore Jul 2014 — Jul 2015
Trainee Software Engineer
Testing, debugging and code optimization for Active safety systems domain. Generating test cases and libraries using CAPL scripting for Medium range radar based and vision system microcontroller based ECU for automatic cruise control.

Indian Institute of Science (IISC), Bangalore Jul 2012 — Aug 2012
Research Intern in the department of Aerospace Engineering. Completed projects are: 8-channel acquisition of data using LabVIEW, Charge amplifier, Synthetic inductor.

PROJECTS

- **'Phood truck' Android App –**Developed an android application that provides data about your favorite food truck, food trucks close to you and categorizes the search with respect to healthiness of the food.
- **'Simulation of computer processor using Java'** – Handling data hazards, branch predictors and also modeling of a cache function by handling cache misses for inorder and out of order execution.
- **'Simulated Light Painting with the PUMA 260' -** Solving for the inverse kinematics of the PUMA robot and programming it to draw a desired picture and capturing it by taking a long-exposure photograph.
- **'Programming an interactive virtual environment with phantom'-** Planning a custom virtual environment with an kinesthetic haptic interface, by considering factors like gravity compensation, trajectory tracking, and several different types of haptic virtual environments.
- **'EmotiLearn'** - An assistive kit for children with Autism by sensing emotions through interactive games, to learn pattern and prognosis using MatLab.

AWARDS AND ACHIEVEMENTS

- **'Panic detection device and methods thereof'**
  Applied for patent. Application No. 4477/CHE/2013 * Received **Technical Education Quality Improvement Program (TEQIP)** sponsorship * Placed Second in the "Concepts presentation" conducted by the ISA student body * Selected as one of the best final year thesis of the department
- **'A method and system to find a precise key from a plurality of keys for a lock'**
  Applied for patent. Application No: 3911/CHE/2013* Received **TEQIP** sponsorship
- **'Embedded web server for WSN'**, International Conference on Computer Science and Engineering (ICCSE, 2012). July 2012
- **'Interfacing an ATmega based data acquisition system board using Labview'**, National Conference on Advanced Communication Trends (ACT. 2012). Aug 2012
- **'Smart stick for the visually impaired'** , Fifth International Joint Conference on Advances in Engineering and **Technology** (AET) Dec 2014