

Prashanth Swaminathan

Hans leipelt straÙe 8, 1604,
München- 80805,
Bayern, Deutschland.

prash2912@gmail.com
+4917665045681

Educational Qualifications:

MSc - Informatics,

Oct' 16 - Present

Technische Universität München.

Bachelor of Technology – Computer Science and Engineering

July '09 - May '13

Amrita School of Engineering, Amrita Vishwa Vidyapeetham,

Work Experience:

Senior Software Engineer

Aug 2013 – Jun 2013

Robert Bosch Engineering and Business Solutions

- Was part of the team which built the Car Infotainment system in the Bosch Car of the future. It was showcased in CES2015 and CES2016.
- Worked as part of Centre of Competence in Car multimedia.
- Worked on reducing driver distraction with eye tracking algorithms and haptic touch screens. The haptic implementation also won the “CES 2016 Innovation Award”.
- Primarily worked on C++, on top of wayland windowing system, creating a framework for building GUI applications in car Infotainment systems.

Intern

(June 2012)

PayPal India Pvt Ltd

- Internship Project: Developed an iOS application for the internal bug tracking system. Worked on Objective-C and Cocoa framework.

Co-founded

(June 2011 – Apr 2012)

CookieLabs

- Developed ERP and CRM for a KCM Mills in Coimbatore. Worked on C#, WPF, winforms, JQuery
- Gave consultation to various photographers on building portfolios.

Intern

(April 2010 - July 2010)

Parihara.com

- Internship Project: Revamped and developed the front end of Parihara.com. Worked on Magento, an e-commerce framework

Academic Projects:

- **Final Year Project:** Pragyana- A semantic question answering engine.
Technologies used: Java, Stanford NLP parser, Dataset from DBPedia, RDF, OWL, Jena Framework, Python Django
Description: A question answering engine, that answers 'who, what, when' based questions. This is a new dimension in the field of search engines and information representation. The traditional search engines are keyword based and they give links, as answers, to the questions posed by the user. But this semantic search engine, tries to give the exact answer to the user's question and not just the link (Only factual questions).
- **Project:** An ERP for a textile mill in Coimbatore
Technologies used: C#, WPF as the frontend, Microsoft Access.
Description: Developed a full-fledged Enterprise resource planning (ERP) application which helped the company to manage its textile resources, raw materials, inventory and their customer records. It was built as a windows application on C#, .NET 4.0 framework with WPF as the GUI. Used Microsoft Access as the database.
- **Project:** Handheld patient health monitor for hospitals.
Technologies used: WinCE embedded, C# .NET 2.0, Winforms, ARM9 mini2440 (friendly ARM), Arduino
Description: A pulse sensor and a temperature sensor were connected to an arduino microcontroller which was in return connected to an ARM processor. The ARM processor had Windows CE 6 Embedded version installed in it. The application to record the data received from the microcontroller was written in C# and winforms was used as the UI. Further, the application sends the patient's pulse and temperature record to the hospital's centralized server which updates the data to the patient's profile.
- **Project:** Prototype Multitouch computer using FTIR (Frustrated Total internal Reflection)
Technologies used: Array of **IR Leds**, **TouchLib** (an open source multitouch library), webcam
Description: Developed a multi-touch computer using an **Acrylic sheet**, an array of **IR LEDs**, a **tweaked webcam** and a computer with the **TouchLib** library. The acrylic sheet was populated with the IR rays and when there is a touch on the surface, the deflected IR rays are captured with the webcam that is placed beneath the acrylic sheet. The points of touch are then sent to the application on the computer. The touch points can be utilized as the input points for any multitouch application. **This project won the first prize in the inter college "Student project" competition, held at Coimbatore.**
- **Project:** Bus Information system through SMS.
Technologies used: C#, Microsoft SQL Server, GSM modem.
Description: Developed a system where users can send the location of their starting point and desired destination as an SMS to the system, and the system would reply back with the bus numbers that ply from the user's boarding and destination locations. Developed the **SMS gateway** and the polling system in C# with a GSM modem and used Microsoft **SQL server** as the database.
- **Project:** Alpha 17- A First Person Shooter Game.
Technologies used: Unity 3D game engine, Javascript, Google SketchUp
Description: Developed a first person shooter game in which our college was modelled and the mission for the shooter was to save the college from terrorists. Used Javascript to write the **AI** for all the models and the scripts for guns and other game objects.
- **Project:** Mini version control system. With a discussion forum called "DevTalk"

Technologies used: PHP, JQuery and MySql

Description: Created a mini version control system (without merge, and only for a single user), for developers to collaborate on a project and share code. The discussion forum was done using PHP, JQuery and Ajax.

- **Project:** Advanced home automation over the internet

Technologies used: Arduino.

Description: Developed a home automation system using which we can control the home appliances over the internet. The system was built using the Arduino Microcontroller and an Ethernet shield.

- **Project:** Smart card based attendance system using RFID

Technologies used: ARM9, RFID, C#.

Description: Developed an attendance system using RFID tags as smart card for the college. The application was built on C#, WPF. It was then implemented by the college.

Papers and publications:

- **“Demand responsive public transportation using wireless technologies”**, 2011

International conference on wireless technologies for humanitarian relief, Amrita University, Amritapuri, Kerala.

Achievements and Awards:

- **“Overall performance award”** for the batch 2009-2013, by the Department of Computer Science, Amrita University.
- **“Young Achiever award”** for the year 2014-2015, awarded by the department of Car Multimedia, Bosch India.
- Presented my paper *“Demand responsive public transportation using wireless technologies”* and **won the first prize** in iNSCRIBE 2011, a national paper presentation competition, conducted by **Robert Bosch**.
- **Regional Finalist** in the **ICPC programming competition 2011** conducted by ACM.
- **Delivered lecture on ‘Demand based public transportation and smarter traffic signals’ at the TEDx, Coimbatore**
- **Conducted workshops** on **FOSS tools, joomla and open source** for students from various colleges in my city
- **Conducted workshops** on **Information security and ethical hacking**.
- **Secretary** of the **FOSS club and the Tech{know}logy club**.
- **Conducted ethical hacking events** for cerebralwars and Anokha (Annual technical festival)
- **Certified Microsoft Technical Associate** in .NET.
- **Finalist** in the **Accenture Public speaking contest** in which more than 800 people participated.
- **Won various awards for photography** in events conducted by Amrita University and The Hindu.