

# SANTHOSH VAIYAPURI

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## EDUCATION

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- 2012 - 2014    Master of Science in EMBEDDED SYSTEMS  
**Eindhoven University of Technology**, The Netherlands  
Thesis: "Robustness analysis for distributed high-end servo control"  
GPA: 7.3/10
- 2007 - 2011    Bachelor of Engineering in ELECTRONICS AND COMMUNICATION  
**Anna University**, India  
GPA: 8.3/10 *First Class Distinction Honor*

## SKILLS

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- C and C++ programming.
- OOP and C++ stdlib concepts.
- Comfortable with Git, BASH, and UNIX environments/build systems.
- Development on Windows and Linux.
- Strong competencies in data structures, algorithms, and software design.
- Familiarity with C# and Java programming.

## WORK EXPERIENCE

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### Sep 2014 - Current

Software Engineer

ICT AUTOMATION - *Eindhoven, The Netherlands*

I am responsible for the development and implementation of (real-time) software in C and C++. I am a part of a team which works on software development projects in the Machine and Systems segment at ICT.

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### Nov 2013 - Aug 2014

Graduate Intern

ASML - *Veldhoven, The Netherlands*

Increasing throughput requirements in lithoscanners translate to need of increased computing power in the form of multi-core embedded systems. This has led to high load in the interconnect network of the embedded sub-system. The goal of this graduation project is to develop software tools that can generate simulation-based models that allows stochastic behavior of the multi-core embedded sub-system along with their interconnect be simulated and analyzed. The models should also incorporate the behaviour of a packet-switched RapidIO interconnect network.

Key objectives are,

- Developing Simulation Models for a Servo Control application and its Computing platform.
- Automating the Simulation Model development using a Java Algorithm

- Developing software tools to analyse the Data resulting from simulation of models
- Collaborating in a multidisciplinary agile software development team

Skills:

- Software: Java, Python, C++
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#### **Jul 2013 - Sep 2013**

Summer Intern

PHILIPS RESEARCH - *Eindhoven, The Netherlands*

I worked in a research group that was studying the effects of structural changes in human brain due to Alzheimer's disease using 7T Magnetic Resonance (MR) Images. The problem was that the company lacked software tools that can process 7T MR Images since they are of high resolution. The internship assignment was to test the performance and feasibility of existing software tools (meant for 1T and 3T MR Images) used in the company for processing 7T MR Images and to also propose usage of new open source imaging software libraries.

My contributions in this group are:

- Interacting with MRI scientists for surveying what imaging software tools they need for the research project
- Analysing the existing software tools for 1T and 3T MR images written in C# based on open source image processing libraries for pre-processing, image registration and 3D shape extraction
- Writing UML models for the existing code

Achievements:

- Successfully reported the performance of existing software tools for 7T MR Images in the form of a written document
- I also studied and evaluated new open source imaging libraries that can process 7T MR Images and reported them in the document

Skills:

- Programming: C#, MATLAB
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#### **Aug 2011 - Apr 2012**

Software Developer

COGNIZANT TECHNOLOGY SOLUTIONS - *Chennai, India*

I worked in a web development group that was responsible for redesigning a web application that was used by the company for publishing employee ratings.

My contributions in this group are:

- Redesign the web application using Client-side Ajax Web development techniques.
- Optimise the algorithms written for the server side functionality of the web application and test them
- Design a basic prototype of a native Android application that replicates the web application
- Working within a Team of 6 and collaborating code

Achievements:

- Successfully redesigned and delivered the web application within a span of six months

- Delivered the native Android application that provides the basic functionalities of the web application

Skills:

- Web Design: HTML, CSS, JavaScript and jQuery
- Programming: C#, Android Java

## ACCOMPLISHMENTS

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- **Recipient** University scholarship during undergraduate study for academic excellence, 2007-2011.
- **Completed** massive open online courses on Algorithms, Software Design, Microcontrollers and Parallel Programming from udacity.com, edx.org and coursera.com, 2013.
- **Recipient** Employee excellence internal award at *Cognizant Technology Solutions*, 2012.

## PERSONAL DATA

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BIRTH: 27-March-1990 | AGE: 24  
WEB: <http://santhosh.info>  
LINKEDIN: <http://lnkd.in/b4VEjM>  
GITHUB: <https://github.com/santhoshvai>  
INTERESTS: Running, open source, fantasy fiction and electric vehicles.

*References are available upon request.*