

# Robin Thomas | Curriculum Vitae

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Date of Birth: 17-08-1987

## Summary

Dynamic and adept Mobile Communications PhD candidate with 5 years academic research experience in signal processing algorithm design for next generation wireless communication technologies. Currently looking for research and development roles within companies where innovation drives the connected world of tomorrow.

## Education

### University of Pretoria, Pretoria, South Africa

*MEng. Electronic Engineering* 2010–2012

Research-based degree, specialization in Wireless Communications

### University of Pretoria, Pretoria, South Africa

*BEng. (Honours) Electronic Engineering* 2009–2010

Coursework-based degree, specialization in Telecommunications

### University of Witwatersrand, Johannesburg, South Africa

*BSc. Electrical:Information Engineering* 2005–2008

## Research/Project Experience

### Vocational.....

### Eurecom (Telecom Paristech), Biot, France

*PhD Candidate* 2013–Present

The thesis explores enhanced interference management techniques for the development of advanced receiver structures as well as spectrally efficient strategies for relay networks. These techniques are analyzed and practically validated using the libraries from the *OpenAirInterface* LTE simulator, which is based in C and MATLAB.

### EURECOM, Biot, France

*Research Intern* January 2011–June 2011

Conducted exploratory research in the area of multiband TOA positioning for cognitive radio systems through a combination of theoretical and simulation work as part of the Master's degree.

### University of Pretoria, Pretoria, South Africa

*Master's Thesis* January 2010–June 2012

This research work explored an efficient bandwidth determination model for a Cognitive Positioning System (CPS) and an improved multiband time-of-arrival location estimation algorithm in a cognitive radio environment.

### University of Witwatersrand, Johannesburg, South Africa

*Bachelor's Final Year Design Project* June 2008–November 2008

Part of a two person team that undertook an open-source 3D game development project based entirely in C++. Responsible for the GUI implementation and made use of object oriented design to integrate various components of the game.

## Terabytes, Kochi, India

*Software Engineering Intern*

*December 2006–February 2007*

Assisted in the design and implementation of a school management web application using Visual C#.NET as the front end and SQL Server 2000 as the back end of the application. Responsible for the database design and implementation of code for student profiles as well as attendance register modules. Developed skills related to front-end and database design.

## Technical Skills

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**Advanced:** MATLAB, C, Digital and Statistical Signal Processing, Parametric Estimation Theory, 3GPP LTE/LTE-A/LTE-A Pro standardization, Cognitive Radio, Wireless Positioning, Software Engineering, LaTeX, Technical Documentation

**Intermediate:** C++, Bash, OpenAirInterface LTE Simulator, Visual Studio, PSpice, MultiSim, FilterLab, OPNET IT Guru Academic Edition, UML modelling, GUI development, Doxygen

**Basic:** Visual C#, HTML, CSS, XML, Git, SQL, ATMEL STK500, software debugging and testing, bootstrap

## Awards

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**2014-Present:** National Research Foundation PhD Scholarship

**2011-2012:** National Research Foundation Scarce Skills Scholarship for Masters Students

**2010:** Sentech Chair in Broadband Wireless Multimedia Communications Postgraduate Scholarship

**2008:** University of Witwatersrand's Alcom Matomo Prize in Telecommunications for the best final year undergraduate design project

**2005:** University of Witwatersrand Scholarship

## Languages

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**English:** Native/Full working proficiency

**Afrikaans:** Limited working proficiency

**French:** Elementary proficiency

## Interests

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| - Startups   | - Hiking     |
| - Football   | - Tennis     |
| - Volleyball | - Travelling |

## Volunteering

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### Conferences

*Student Volunteer*

Volunteering roles include:

- Assisting with on-site registration of delegates and setup of exhibits and demos.
- Served as a session monitor for a number of tutorials, technical paper presentations and workshops during the conference.