Mr Pradeep Loganathan

PERSONAL DETAILS

Date of Birth	:	3 July 1983
Address	:	186 Lyon Park Avenue, Wembley, HA0 4HG
Nationality	:	British
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EDUCATION

Imperial College, PhD in Adaptive Filters for system identification (awaiting my viva) London, U.K. Thesis (supervised by Dr. Patrick A. Naylor): "Sparseness-controlled Adaptive Oct 2007 - Mar 2011 Algorithms for Supervised and Unsupervised System Identification" Imperial College, Information Systems Engineering (MEng & ACGI) - First Class Honours London. U.K. Final year individual project: Proposed a novel algorithm for effective echo Oct 2003 - Jul 2007 removal in telephony channels (Digital Signal Processing). Other individual projects: wrote an own complier to convert Pascal source language into its equivalent ARM assembly language using C language, created digital logic simulator in Pascal by parsing method, programmed in ARM to calculate highest common factors for given pairs of hexadecimal numbers, designed a quadratic mirror filter in Matlab, wrote Perl script to manipulate given protein sequences. Group projects: Designed an automated agent based trading system in Java, coded in C++ to perform nodal analyse for a given circuit net-list. programmed on a Field Programmable Gate Array (FPGA) to do parallel image processing, analysed ABF company's performance against its competitors, explored the gap 'from research to business'. Harrow College, A Level - 3A's (Maths, Further Maths and Physics), Harrow Weald, U.K • AS Level - 1A (Chemistry), Sep 2001 - Jul 2003 Advanced Extension Award in Maths - Distinction, • STEP Mathematics - grade1 (very good) GCSE - 10Distinctions (Double Maths, Double Science, English language, Tamil Hindu College, language and literature, Social and History, Accounts and Commerce, Religion Colombo, Sri Lanka. Jan 1999 - May 2001 and Music **CURRENT POSITION** Imperial College, Project: Lightweight Noise Protection System design **Research Associate** Funded by QinetiQ Ltd • (Apr 2011 - present) Co-workers: Dr. Mike Brooks and Dr. Patrick A. Naylor WORK EXPERIENCE

Imperial College,	•	Taught Engineering Mathematics to undergraduates during tutorials
Teaching assistant	•	Lab demonstrator for Electronic labs
(Oct 2007 -	•	Helpdesk Assistant for Software Engineering
Mar 2011)	•	Graded coursework and laboratory technical reports

Imperial College, Webmaster (Oct 2009 - Mar 2011)	 Member of a technical team responsible for Blackboard course migration project. Examined the lecture course layouts and structures which follow a college-wide template. Designed web pages to facilitate team members to register their teams. Activated on-line assignment submissions.
Wm Morrison Supermarkets Plc, Systems Clerk (Jun 2006 - Oct 2006)	 Undertook shop floor gap counts to generate availability lists and ensured the accessibility of lines in the Grocer Magazine's full basket. Certified the price tags of new promotional products. Checked order pads to ensure order is necessary. Merchandised new lines into correct locations.
Navina Consulting IT consultancy, Consultant (Jul 2005 - Sep 2005)	 Consulted with clients to define need or problem, and analysed data to recommend solution. Examined contract requirements, delivery schedules, and costs estimation of equipments. Assembled and installed CCTV Cameras and executed power cable links with lights and plugs. Provided computer network connections and printer connections.
Navina Consulting IT consultancy, Junior Programmer (Jul 2003 - Sep 2003)	 Built numerous computers from specified components. Installed the required Windows operating system and the specified driver software. Programmed in Active Server Page (ASP) to convert collected data related to employee telephone calls into graphs, charts and tables for management to analyse.

IT SKILLS

•	Programming languages	:	C, C++, Pascal, (Java – basic)
•	Assembly languages	:	ARM, Handel-C
•	Other languages	:	Matlab, Python
•	Operating systems	:	Windows 98, 2000, XP, Vista and 7, CYGWIN
•	Software packages	:	Ms Office, Adobe Photoshop, Macromedia Dream weaver

LANGUAGE SKILLS

•	Native language	:	Tamil
•	Fluent	:	English, Sinhala

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Intermediate : German ٠

AWARDS AND OTHER ACTIVITIES

- SENIC Research grant •
- Achieved silver certificate for UK Senior Mathematical Challenge in 2002. •
- Involved with voluntary work in Sri Lanka as part of the National volunteer award •
- Technical crew for a local Sri Lankan society •
- Private Mathematics tutor for GCSE and A level •

• Sports

- : Cricket, football and rock climbing
- : Theatre, traditional Indian music and Karnatic dance
- Travel

Culture

- : Saudi Arabia, Singapore and Switzerland
- Current affairs : Tamil politics

JOURNAL PUBLICATION

• **Pradeep Loganathan**, Andy W. H Khong and Patrick A. Naylor, "A Class of Sparseness-controlled Algorithms for Echo Cancellation", *IEEE Transactions on Speech, Audio and Language Processing*, vol. 17, no. 8, pp. 1591-1601, Nov 2009

CONFERENCE PUBLICATIONS

- **Pradeep Loganathan**, Emanuel A. P. Habets and Patrick A. Naylor, "A Proportionate adaptive algorithm with variable partitioned block length for acoustic echo cancellation", *Proc. of the IEEE international conference on Acoustics, Speech and Signal Processing (ICASSP 2011)*, Prague, Czech Republic, May 2011.
- **Pradeep Loganathan**, Emanuel A. P. Habets and Patrick A. Naylor, "A partitioned block proportionate adaptive algorithm for acoustic echo cancellation", *Proc. of the APSIPA Annual Summit and Conference 2010*, Biopolis, Singapore, Dec 2010.
- **Pradeep Loganathan**, Emanuel A. P. Habets and Patrick A. Naylor, "Performance analysis of IPNLMS for identification of time-varying systems", *Proc. of the IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2010)*, Dallas, USA, Mar 2010.
- **Pradeep Loganathan**, Xiang (Shawn) Lin, Andy W. H Khong and Patrick A. Naylor, "Frequencydomain Adaptive Multidelay Algorithm with Sparseness-control for Acoustic Echo Cancellation", *Proc. European Signal Processing Conf. (EUSIPCO)*, Glasgow, Scotland, Aug 2009.
- **Pradeep Loganathan**, Andy W. H Khong and Patrick A. Naylor, "A Sparseness-controlled proportionate algorithm for acoustic echo cancellation", *Proc. European Signal Processing Conf. (EUSIPCO)*, Lausanne, Switzerland, Aug 2008.

REFEREES

Dr. Patrick A. Naylor Imperial College London Exhibition Road, South Kensington, SW7 2AZ, U.K. Email: <u>p.naylor@ic.ac.uk</u>

Prof. dr.ir. Emanuël A.P. Habets International Audio Laboratories Erlangen Am Wolfsmantel 33, Erlangen, Germany. Email: <u>e.habets@ieee.org</u> **Pradeep Loganathan** 186, Lyon Park Avenue, Wembley, HA0 4HG Mobile : 074 23 123 827 Email : <u>ploganathan@gmail.com</u>

Dear Sir / Madam,

Signal Processing Software Engineer

I am currently holding a short-term post-doctoral position at Imperial College London, undertaking a research in Communication and Signal processing. I would like to apply for the above position at Schlumberger, which I came to know through Prof. Kin Leung.

Throughout my PhD and the current position as a research associate, I proposed and developed several supervised and blind system identification algorithms in Matlab. In terms of technical and work experience, I undertook placements over two summer periods at a software consultant company, Navina Consulting. During the summer of 2003, I dealt with several aspects of computer science. I gained experience in dealing with the hardware side of computers, building several computers from specified components and installing the required Windows operating system. This gave me an excellent opportunity to understand more about the electronics and internal architecture of a computer. It was in this period that I was also given an opportunity to learn Active Server Page (ASP), a server site programming language. During the summer of 2005, I consulted with clients to directly characterise their needs, and subsequently evaluated data to recommend solutions. Apart from these technical skills, I developed capabilities which had a direct impact on the project advancement. These included learning to effectively assess peoples' ability, efficiently manage time and work effectively under pressure.

I have experience in various programming languages and possess a high level of numeric and analytical skills. Throughout my professional and academic career I have developed strong interpersonal and communication skills, and have gained vast experience in experimenting and investigating systems' performance. I am attracted to working for a leading company as I am keen to work with colleagues of the highest calibre to best develop myself. I feel that a placement would provide the perfect opportunity to show my worth in the working arena. I am confident that I can be successful, and add value to Schlumberger.

Yours faithfully, Pradeep Loganathan 26th May 2011.