



# Shane Tuohy

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## Education

- 2010–2014 **PhD**, *National University of Ireland, Galway*.  
(projected) My PhD work is concerned with the specific demands of using Ethernet technology to network the numerous digital cameras and associated back end vision and scene analysis sub-systems that will be deployed in the next generation of vehicles.
- 2012–2013 **Visiting Researcher**, *University of California San Diego*.  
I spent 7 months working with Professor Mohan Trivedi at LISA (Laboratory for Intelligent and Safe Automobiles), working on real world implementations of automotive Ethernet networks.
- 2006–2010 **B.E Electronic & Computer Engineering**, *National University of Ireland, Galway*, *First Class Honours*.  
My final year research project involved developing a novel automotive distance determination algorithm using OpenCV. This won the 2010 Avaya Award for Best Final Year Project and a research paper based on it was published at a peer reviewed conference.

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## Publications

- S. Tuohy, M. Glavin, C. Hughes, E. Jones, M. Trivedi, and L. Kilmartin, "Intra-Vehicle Networks : A Review," *IEEE Transactions on Intelligent Transportation Systems*, pp. 1–12, 2014.
- S. Tuohy, M. Glavin, E. Jones, M. Trivedi, and L. Kilmartin, "Next Generation Wired Intra-Vehicle Networks , A Review," in *IEEE Intelligent Vehicles Symposium 2013*, 2013.
- S. Tuohy, M. Glavin, C. Hughes, E. Jones, and L. Kilmartin, "An ns-3 Based Simulation Testbed for In-Vehicle Communication Networks," in *UKPEW 2011*, (Bradford), 2011.
- S. Tuohy, D. O'Cualain, E. Jones, and M. Glavin, "Distance Determination for an Automobile Environment using Inverse Perspective Mapping in OpenCV," in *IET Irish Signals and Systems Conference*, pp. 100–105, IET, 2010.

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## Experience

- 2014 **Web Developer**, *Level Four Research and Consultancy Limited*, Galway, Ireland.  
I have been working on a contract basis on PHP web applications.
- MySQL and PHP development of new features in an MVC architecture
  - Integration with commercial SMS APIs and designing automated email notifications

- 2009 **Research and Development Engineer**, *Netfort Technologies*, Galway, Ireland.  
I spent 6 months working on all aspects of the LANGuardian project, an enterprise network monitoring tool.  
While working at Netfort, I;
- Incorporated several new features into LANGuardian such as;
    - BitTorrent monitoring
    - Improved boot procedures
    - Extended hardware support
  - Regularly assisted the support team to help answer customer questions.
  - Worked on a small, dynamic engineering team in a variety of languages
- 2008 **Programming Technician**, *ESB*, Lanesborough, Ireland.  
I spent 3 months working primarily with Microsoft Office products to develop reporting tools as well as a live updating digital noticeboard.

## Skills

- Programming in a wide variety of languages, from assembly to web applications
- Linux server administration experience
- Electronic Engineering background, including analogue, digital and FPGA design
- Excellent interpersonal, public speaking and written communication skills

## Programming Skills

<b>High Level</b>	Python, Java, C++, PHP, C#	<b>Low Level</b>	ASM, C, FORTRAN, VHDL
<b>Linux Admin</b>	LAMP, LDAP, Exim, KVM	<b>Scripting</b>	bash, Perl, tcl
<b>Frameworks</b>	ns-3, OpenCV, Android, flask	<b>Tools</b>	EC2, git, CVS

## Languages

English	<b>Native</b>
Irish	<b>Fluent</b>
French	<b>Intermediate</b>

## Achievements and Awards

- 2010 Avaya Prize for Best Final Year Project
- Awarded Irish Research Council EMBARK EPS Scholarship
- Represented NUI Galway at varsity level in squash
- Produced, researched and presented multiple FM radio shows
- President of NUI Galway Computer Society for 2 years
- Founding member of NUIG Skeptic Society

## References

- Mark McDonagh - HP Cloud Services (Formerly of Netfort Technologies)
  - Dr. Martin Glavin - National University of Ireland Galway
  - Liam Kilmartin - National University of Ireland Galway
- Contact details available on request*