

# PhD Programmes

## @NUS Computing

Our emphasis on **excellence in teaching and research**, and commitment to offering students every opportunity to reach their **maximum potential** has placed us **among the top ten universities in the world for computing\***. NUS Computing's academic staff and students continually engage in diverse, **award-winning research**, noteworthy projects and rewarding collaborations with other prominent institutions, locally and internationally.

With a faculty of **200 academic staff** from some of the best universities worldwide, a 2000-strong student body, a host of **distinguished alumni** at the helm of various leading organisations, and rapidly growing **global prominence**, earnest graduate students can be assured of sound prospects at **NUS Computing**.

*\*2016 Quacquarelli Symonds World University  
Rankings by Subject*

## Department of Computer Science



The Department of Computer Science offers a research-intensive PhD program focussed on academic achievements, including published papers, conference presentations, system building and patents. Students work closely with faculty advisors to address challenging problems targeting a wide range of areas in both theoretical and applied computing.

The Department of Computer Science's research encompasses the following areas:

- Algorithms & Theory
- Artificial Intelligence
- Computational Biology
- Database
- Media
- Programming Languages & Software Engineering
- Security
- Systems & Networking

**Liu Yang**, 2010 PhD Graduate  
Assistant Professor  
Nanyang Technology University, Singapore

**Li Hao**, 2011 PhD Graduate  
Associate Director  
Standard Chartered Bank, Singapore

**Lu Zheng**, 2011 PhD Graduate  
Assistant Professor  
City University of Hong Kong, Hong Kong

**Nguyen Thanh Trung**, 2013 PhD Graduate  
Scientist  
Adobe Inc., USA

**Kazi Rubaiat Habib**, 2014 PhD Graduate  
Senior Research Scientist  
Autodesk Research, Canada

**Yan Xu**, 2015 PhD Graduate  
Research Engineer  
National ICT, Australia

**Pooja Roy**, 2015 PhD Graduate  
Research Scientist  
Intel Labs, India

**Conrado el Rosario Ruiz Jr**, 2015 PhD Graduate  
Associate Professor  
De La Salle University - Manila, Philippines

**Li Zhuoru**, 2016 PhD Graduate  
Software Engineer  
Google Inc, South Korea

## Department of Information Systems

The Department of Information Systems seeks PhD candidates who are interested in pursuing research in information technologies as applicable to business, healthcare, and society at large. Faculty members are engaged in a variety of research topics and have received numerous accolades for their research contributions worldwide and within Asia.

The Department of Information System's primary research interests are:

- Data Science & Business Analytics
- Economics of Information Systems
- Social Media & Digital Business
- Healthcare Informatics
- Information Systems Development & Management
- Digital Innovation in the Service Economy



**Yang Yiping**, 2008 PhD Graduate  
Senior Scientist  
Institute of High Performance Computing, A\*Star, Singapore

**Naresh Kumar Agarwal**, 2010 PhD Graduate  
Associate Professor  
Graduate School of Library and Information Science, Simmons College, Boston (United States)

**Pee Loo Geok**, 2010 PhD Graduate  
Assistant Professor  
Nanyang Technological University, Singapore

**Barney Tan Chee Chang**, 2012 PhD Graduate  
Senior Lecturer  
University of Sydney, Australia

**Tong Yu**, 2012 PhD Graduate  
Assistant Professor  
City University of Hong Kong, Hong Kong

**Wang Qingliang**, 2013 PhD Graduate  
Assistant Professor  
Xi'an Jiaotong University, China

**Lin Zhijie**, 2013 PhD Graduate  
Assistant Professor  
Nanjing University (School of Business), China

**Carmen Leong Mei Ling**, 2015 PhD Graduate  
Lecturer  
University of New South Wales, Australia

**Li Mei**, 2016 PhD Graduate  
Data Scientist  
Singapore Telecommunications Ltd, Singapore

## Achievements

### President's Technology Award

Professors Wynne Hsu and Lee Mong Li won the 2014 President's Technology Award, together with Professor Wong Tien Yin from Duke-NUS Graduate Medical School Singapore, for the development of a suite of novel eye image analysis technologies, which enables automatic screening of retinal images and generation of medical reports at higher speeds and lower costs.

### The Google Anita Borg Memorial Scholarship Award

PhD student Tan Shin Hwei secured The Google Anita Borg Memorial Scholarship Asia Pacific for 2015, a highly competitive award established to promote excellence and leadership in computing and technology among women.

### Best Presentation Award

PhD student Prasanta Bhattacharya won the Best Presentation Award at the Universitas 21 Graduate Research Conference 2015, for his talk on the use of computational approaches to study human behaviour from big data.

### ICRA Robotics Challenge

PhD graduate Luo Yuanfu, and post-doctoral fellows Bai Haoyu and Ye Nan, won first place in the Humanitarian Robotics and Automation Technology Challenge at the IEEE's International Conference on Robotics and Automation (ICRA 2015), which was designed 'to promote the use of robotics and automation technologies for the reliable and robust detection and classification of landmines'.

### Yahoo-flickr Challenge

PhD student Rajiv Ratn Shah, Associate Professor Roger Zimmerman and their collaborators won second place in the Yahoo-flickr Event Summarization Challenge at ACM Multimedia 2015 (MM 2015), where participants were tasked to 'automatically uncover structure within a collection of 100 million photos/videos in the form of detecting and identifying events, and summarizing them succinctly for consumer consumption'.

### Best Paper Awards

Dr Yin Kangkang and her collaborators won the Best Paper Award at the ACM SIGGRAPH/Eurographics Symposium on Computer Animation 2015 (SCA 2015), for their paper entitled 'Learning Reduced-Order Feedback Policies for Motion Skills', which introduced a method for learning low-dimensional linear feedback strategies for the control of physics-based animated characters around a given reference trajectory.

PhD student Nimantha Baranasuriya and his collaborators won the Best Short Paper Award at the International Conference on emerging Networking Experiments and Technologies (CoNEXT 2015)

Dr Sharon Tan, Prof Teo Hock Hai and their collaborator have received the AIS SIGHealth 2016 Annual Best Paper Meritorious Mention for their paper 'The road to early success: Impact of system use in the swift response phase'.

## Scholarships & Funding

All qualifying full-time NUS Computing PhD students are eligible for NUS scholarships that cover their tuition fees and provide monthly stipends. The total stipends awarded per scholarship range between S\$96,000 (S\$2000 per month) to S\$168,000 (S\$3500 per month) over four years, with possible funding for students' conference travel. Supplemental financial support may also be acquired from teaching or research assistant roles or private fellowships.

## Applications & Admissions

Applicants are not required to commit to any supervisors prior to entering NUS Computing's PhD programme – a unique flexibility that is not commonly offered elsewhere. Students will select supervisors a semester after entering the PhD programme.

For further details, please visit:

[www.comp.nus.edu.sg/programmes/#graduate](http://www.comp.nus.edu.sg/programmes/#graduate)



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National University  
of Singapore