

# Xiuming Zhang

🌐 <http://xiumingzhang.github.io>

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## EDUCATION

B.Eng. (ECE), **National University of Singapore**, Singapore

AUG 11 - MAY 15

- GPA: 4.97/5.00 | Ranking: 1/282 | Lee Kuan Yew Gold Medal
- Thesis: *Discovering Alzheimer's disease subtypes by voxel-based morphometry & topic modeling*  
Committee: Profs. Thomas Yeo (advisor) & Shuicheng Yan (examiner)
- GRE: V 157 (74%), Q 170 (98%), AW 4.5 (80%) | TOEFL: 113 = R 30 + L 29 + S 26 + W 28

Exchange Student, **University of Waterloo**, ON, Canada

JAN 14 - MAY 14

- GPA: 95/100 (ECE courses)

## PUBLICATIONS

- [2] J Gao, X Zhang, H Liang and X Shen, *Joint encryption and compressed sensing in smart grid data transmission*, in Proc. IEEE **GLOBECOM**, Dec. 2014
- [1] X Zhang, Y Jin, HX Tan and WS Soh, *CIMLoc: a crowdsourcing indoor digital map system for localization*, in Proc. IEEE **ISSNIP**, Apr. 2014

## HONORS & AWARDS

|   |            |             |
|---|------------|-------------|
| <b>Lee Kuan Yew Gold Medal</b> (best graduate throughout)           | NUS        | JUN 15      |
| <b>IES Gold Medal</b> (top graduating student)                      | IES        | JUN 15      |
| <b>Texas Instruments Book Prize on DSP &amp; Systems</b> (area top) | TI         | JUN 15      |
| <b>Faculty Innovation &amp; Research Awards</b>                     | NUS        | APR 14 & 15 |
| <b>IEEE-HKN (Eta Kappa Nu) Honor Society</b>                        | IEEE       | JAN 14      |
| <b>IET Prize</b>  | IET        | JUL 13      |
| <b>Rohde &amp; Schwarz Competition Finale Travel Grant</b>          | R & S GmbH | JUN 13      |
| <b>Intermediate Level Certificate of German Language</b>            | NUS        | MAY 13      |
| <b>Dean's List</b>  | NUS        | 11 - 13     |

## RESEARCH EXPERIENCE

Research Officer @ NUS-A\*STAR Clinical Imaging Research Center

JUL 15 - NOW

Thesis Student @ NUS-A\*STAR Clinical Imaging Research Center AUG 14 - MAY 15  
**neuroscience, MRI, linear model, hypothesis testing, graphical model** Advisor: Prof. Thomas Yeo  
• Developed a hierarchical Bayesian framework of Alzheimer's disease subtypes that show distinct cognitive decline trajectories in both pre-clinical and clinical phases

Research Student @ uWaterloo Broadband Communications Research Lab JAN 14 - APR 14  
**pseudorandom sequence, compressed sensing, smart grid** Advisor: Prof. Xuemin Shen  
• Implemented a compressed sensing scheme with encryption [2]

Research Intern @ NUS & A\*STAR Institute for Infocomm Research MAY 13 - Nov 13  
**clustering, crowdsourcing, sensor, Android** Advisor: Prof. Wee-Seng Soh  
• Designed and implemented an unsupervised, crowdsourcing indoor map construction system that improves tracking and localization [1]

## TEACHING EXPERIENCE

Teaching Assistant @ NUS School of Computing AUG 12 - AUG 13  
• Coached over 100 undergraduates in CS1010E Programming Methodology over two semesters and received very positive feedback from both the lecturers and the students

## COMPUTER & LANGUAGE SKILLS

|                       |   |
|-----------------------|---|
| Programming Languages | MATLAB, Python, Shell, C, Android, VHDL, Assembly                   |
| Scientific Softwares  | FSL, FreeSurfer, SPM, COMSOL Multiphysics, HFSS                     |
| Typesetting           | T <sub>E</sub> X and friends, Adobe Illustrator                     |
| Operating Systems     | Linux, OS X, Windows  |
| Languages             | English (proficient), Mandarin (mother tongue), German (elementary) |