

## EDUCATION AND QUALIFICATIONS

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| <b>Singapore</b>   | <b>National University of Singapore</b> | <b>Aug 2016 - Feb 2018</b> |
| <ul style="list-style-type: none"><li>Master of Science (Computer Science) by Research (Machine Learning and Natural Language Processing). GPA: 4.83/5.00</li><li>Thesis Title: <a href="#">Automated Diagnosis of Acute Appendicitis Based on Clinical Notes</a><ul style="list-style-type: none"><li>Collaborated with National University Hospital (NUH) and developed a patented novel neural network model for predicting <i>acute appendicitis</i> using free-text emergency department (ED) notes written by doctors.</li></ul></li></ul> |   |                            |
| <b>Singapore</b>   | <b>National University of Singapore</b> | <b>Aug 2012 - Jun 2016</b> |
| <ul style="list-style-type: none"><li>Bachelor of Computing (Computer Science) with Honours (Distinction). GPA: 4.41/5.00</li><li>Specializes in Artificial Intelligence (AI) and Natural Language Processing (NLP).</li></ul>   |   |                            |

## PUBLICATIONS AND PATENTS

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- Yuwono, S. K.**, Ng, H. T., & Ngiam, K. Y. (2019). [Learning from the Experience of Doctors: Automated Diagnosis of Appendicitis Based on Clinical Notes](#). In *Proceedings of the 57<sup>th</sup> Annual Meeting of the Association for Computational Linguistics (ACL 2019), 18<sup>th</sup> BioNLP Workshop*.
- Yuwono, S. K.**, Biao, W., & D'Haro, L. F. (2018). [Automated Scoring of Chatbot Responses in Conversational Dialogue](#). In *Proceedings of International Workshop on Spoken Dialog System Technology (IWSDS 2018), WOCHAT*.
- Yuwono, S. K.**, Ng, H. T., & Ngiam, K. Y. (2017). System and Method for Computerized Diagnosis Based on Clinical Notes. Singapore Patent No. 10201709877S.
- Yuwono, S. K.**, Ng, H. T., & Ngiam, K. Y. (2016). [Automated Anonymization as Spelling Variant Detection](#). In *Proceedings of the 26<sup>th</sup> International Conference on Computational Linguistics (COLING 2016), Clinical NLP Workshop*.

## HONORS AND AWARDS

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- SembCorp Undergraduate Scholarship** (2012-2016) Scholarship for international undergraduate students.
- ASEAN Scholarship** (2006-2011) Scholarship for international students (secondary & high school).
- IEEE Singapore Computer Society Book Prize** (2016) Best honours project (B.Comp Dissertation) in AY 2015/2016.
- Certificate of Distinction in Information Retrieval** (2016) Award for outstanding result in IR modules.
- Certificate of Distinction in Artificial Intelligence** (2015) Award for outstanding result in AI modules.
- Silver Medal, 14<sup>th</sup> NOI** (2011) National Olympiad in Informatics Singapore.

## EMPLOYMENT

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| <b>Data Scientist</b>  | <b>National University Health System – Technology Office</b> | <b>Feb 2018 - Mar 2019</b>          |
| <ul style="list-style-type: none"><li>Responsible for building neural network models, applying machine learning and NLP in healthcare domain: anonymization, data cleaning, model building and tuning, and clinical trial/validation set-up.</li><li>Major involvement in planning and organizing NUHS Healthcare AI Datathon and Expo 2018. Responsible for technical set-up for the expo and datathon, demonstrating the capabilities of DISCOVERY AI (NUHS Clinical AI platform).</li></ul> |  |                                     |
| <b>Software Engineer Intern</b>  | <b>Microsoft – MS Office, Core Experience (CXE) Team</b>     | <b>Redmond, WA – Jun - Aug 2015</b> |
| <ul style="list-style-type: none"><li>Developed internal tools to process, automatically match call stacks, and visualize memory events and leaks.</li><li>Developed a prototype tool to detect critical thread (i.e., UI) blocking during runtime of multi-threaded Office applications.</li></ul>  |  |                                     |
| <b>Software Developer Intern</b>   | <b>Autodesk – Maya Animation Team</b>                        | <b>Dec 2014 - May 2015</b>          |
| <ul style="list-style-type: none"><li>Developed new features contributing to Maya Time Editor and fixed multiple bugs.</li><li>Development involving various parts including back-end, graphical user interface, and Maya scripting language (MEL).</li></ul>  |  |                                     |

## TECHNICAL EXPERIENCE - PROJECTS

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- Sentiment Classifier** (2018) [[Web Demo](#)]. Neural network model (CNN and LSTM) to classify the sentiment of free-text movie review (i.e., positive or negative). Implemented attention mechanism to visualize important words and phrases. *Python, PyTorch, NLP*
- PSI-WX-SG** (2018) [[Web Demo](#)] [[Google Play](#)]. Android application to show Singapore PSI, PM2.5 readings (haze pollutant factor), current weather conditions, and weather forecast in a user-friendly way. *Android, Java, Android Studio*
- Stochastic POS Tagger** (2014). Part-of-Speech Tagger using Hidden-Markov Model built from scratch. Supervised Learning and Kneser-Ney Smoothing was implemented. *C++, Machine Learning, NLP*

## LANGUAGES AND TECHNOLOGIES

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- C++, Java | Python, PyTorch, Keras, Theano | Visual Studio, Eclipse | PHP, MySQL, JavaScript | Android, Android Studio