

CONTACT INFORMATION	<i>E-mail:</i> aldrianobaja.m@gmail.com <i>GitHub:</i> http://github.com/justhalf	Full CV at my personal website
RESEARCH INTERESTS	Natural language processing, Hypergraph-based Models, Combinatorics, Algorithm	
EDUCATION	Carnegie Mellon University , Pittsburgh, PA Master of Language Technology, Language Technology Institute <ul style="list-style-type: none"> • Worked on LORELEI project under Prof. Teruko Mitamura and Eduard Hovy, focusing on recognizing events and their attributes from text in low-resource language • Systematically tested several methods (heuristics and deep learning) to find the most contributing factors across 25 different languages 	Aug '17 - Aug '19
	National University of Singapore , Singapore Undergraduate, School of Computing <ul style="list-style-type: none"> • Bachelor of Computing (Computer Science, First Class Honours) • Recipient of Lijen Industrial Development Award (Second top student) • Majoring in Computer Science with focus area on Computer Networks • Taking the course under Turing (research) Program • Minor in mathematics 	Jul '09 - Jul '13
WORK EXPERIENCE	Research Assistant <i>Singapore University of Technology and Design (SUTD)</i> , Singapore <ul style="list-style-type: none"> • Exploring semantic representations using graphical models for structured prediction • Supervising undergraduate student researchers in research projects • Advisor: Asst. Prof. Lu Wei 	Jul '15 - Jun '17
	Research Engineer <i>Knorex Pte. Ltd.</i> , Singapore <ul style="list-style-type: none"> • Designed and performed experiments for text classification on news articles • Implemented and extended existing method on concept extraction for key terms extraction • Redesigned and optimized a system for efficient distributed computing • Developed and maintained in-house tools for natural language processing 	Jul '13 - Jun '15
PUBLICATIONS	Low-resource Cross-lingual Event Type Detection in Documents via Distant Supervision with Minimal Effort Aldrian Obaja Muis, Naoki Otani, Nidhi Vyas, Ruochen Xu, Yiming Yang, Teruko Mitamura, and Eduard Hovy. In Proceedings of the 27th International Conference on Computational Linguistics (COLING 2018). Long paper	Aug '18
	Labeling Gaps Between Words: Recognizing Overlapping Mentions with Mention Separators Aldrian Obaja Muis and Wei Lu In Proceedings of the 2017 Conference on Empirical Methods in Natural Language Processing (EMNLP 2017). Long paper. [Supplementary Material].	Sep '17
	MalwareTextDB: A Database for Annotated Malware Articles Sweekiat Lim, Aldrian Obaja Muis, Wei Lu and Chen Hui Ong In Proceedings of the conference of the Association for Computational Linguistics (ACL 2017). Long paper. [New Dataset].	Aug '17
	Efficient Dependency-guided Named Entity Recognition Zhanming Jie, Aldrian Obaja Muis and Wei Lu In Proceedings of the 2017 Conference on Artificial Intelligence (AAAI-17) <ul style="list-style-type: none"> • Performed the theoretical complexity analysis of the model via combinatorial analysis 	Feb '17
	Learning to Recognize Discontiguous Entities Aldrian Obaja Muis and Wei Lu In Proceedings of the 2016 Conference on Empirical Methods in Natural Language Processing (EMNLP 2016). Long paper. [Supplementary Material] <ul style="list-style-type: none"> • Includes some combinatorial analysis in the supplementary 	Nov '16
	Weak Semi-Markov CRFs for NP Chunking in Informal Text Aldrian Obaja Muis and Wei Lu In Proceedings of the 2016 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL 2016). Short paper	Jun '16

PROJECTS

Language Technology Institute, **Carnegie Mellon University**, Pittsburgh, PA

Hierarchical RNN for Diagnosis Code Prediction (Class Project) **Aug '17 - May '18**

- Worked on a novel hierarchical recurrent neural network (RNN) model for hierarchical classification for diagnostic code prediction using MIMIC-III dataset
- Advisors: Graham Neubig and Matthew R. Gormley

Incorporating Emotions for Emoji Prediction (Class Project) **Jan '18 - May '18**

- Proposed and worked on evaluating ways to incorporate emotion information to improve emoji prediction [[workshop paper](#)]
- Advisors: Eduard Hovy and Teruko Mitamura

School of Computing, **National University of Singapore**, Singapore

Final Year Project (Honours Project) **May '12 - Apr '13**

- Evaluated an existing algorithm for domain specific Word Sense Disambiguation through comparison with other algorithms
- Advisor: Ng Hwee Tou

Web Project Developer for **TEAMMATES** **May '12 - Jun '12**

- Evaluated existing code and improve testing time to 5 times faster by refactoring and recoding the whole testing phase in 6 weeks
- Migrated the application from a client-based Javascript website into server-based JSP website

Undergraduate Research Opportunity Program (UROP) **May '11 - Apr '12**

- Implemented and evaluated existing algorithm on extracting data from the Web under different domain through extensive experiment
- Advisor: Stéphane Bressan

Undergraduate Student Researcher (USR) **May '10 - Dec '10**

- Analyzed the quality of translation from English to Malay and English to Indonesian
- Adapted existing Malay word stemming program into Indonesian
- Studied the language differences between Malay and Indonesian
- Advisor: Prof. Ng Hwee Tou

CO-CURRICULAR ACTIVITIES

NUSSU commIT (formerly known as NUSSU CBLC until Jun '11)

Head of Technical Cell **Jul '12 - Jun '13**

Assistant Head of Technical Cell **Jul '10 - Jun '12**

Member of Technical Cell **Aug '09 - Jun '10**

- Maintained 100+ computers in the computer clusters in NUS through general cleanup, backup, and automated updates
- Developed public and internal website of NUSSU commIT for intensive daily usage

Technical Head of NUSSU CBLC IT Flair 2010 **Feb '10 - Apr '10**

- IT Flair is a combination between IT Fair and Flea market
- Developed website as publication media for the event and for selling second-hand items

Vice Project Director of NUSSU CBLC Cyberia Camp 2010 **Oct '10 - Dec '10**

- Cyberia Camp is a 3-day camp for certified Adobe Photoshop and Illustrator Training
- Led a team of 14 people to successfully organized the camp and received overwhelming response and positive feedback

NUS ISCF (Indonesian Students' Christian Fellowship)

Executive Committee **Jul '11 - May '13**

- Managed a weekly group meeting of around 40 students