Reinald Kim Amplayo

Rm402 Gongsangga Yonsei 1 305-5 Yeonhui-dong Seodaemun-gu Seoul, Korea
http://rktamplayo.github.io • rktamplayo@yonsei.ac.kr • +82 (10) 2944-1421

EDUCATION

Yonsei University, Seoul, Korea

- M.A. in Library and Information Science — Mar 2016 – present
  - Coursework: Artificial Intelligence, Search and Text Analytics, Web and Social Media Mining, Big Data and Structured Data Management, Social and Knowledge Graph Analysis, Analysis of Algorithms, and 7 more
  - Thesis: *"System of Contexts: Generative Models for Unsupervised Sense Disambiguation"*

Ateneo de Davao University, Davao City, Philippines

- Units in Computer Science and Mathematics — Jun 2013 – Feb 2014
  - WPA: 97.2 / 100
- B.S. in Information Technology — Jun 2009 – Mar 2013
  - Thesis: *"Automated Essay Grading using Reflective Random Indexing"*
  - Graduated magna cum laude.
  - WPA: 93.7 / 100 (*ranked 1st among all graduates*)

RESEARCH EXPERIENCE

Data Intelligence Laboratory, Yonsei University

- Visiting Researcher — Jan 2017 – Present
- Projects
  - **Video Question and Highlighting** (project supported by Samsung Research)
    Developed an algorithm to extract adjective-noun pairs from short texts and cluster these pairs based on aspect. The algorithm also groups the texts based on the aspect-sentiment distribution.
  - **Additional Contexts for Better NLP Models**
    Extended neural methods to NLP problems such as text classification, text summarization, and inference to intelligently and efficiently insert additional contexts to supplement in the learning.
  - **Knowledge Base Expansion**
    Expanded FrameNet, a frame-based knowledge base, by semantically conceptualizing the frame elements to include instances from Probase using probabilistic and neural methods.
- Principal Investigator: Prof. Seung-won Hwang

Text and Social Media Mining Laboratory, Yonsei University

- Research Assistant — Jan 2016 – Present
- Projects
  - **Aspect-based Sentiment Analysis** (project supported by Social Science Korea)
    Extended the state-of-the-art sentiment topic model to work better on short texts using multiple techniques. Also extended the said topic model to incorporate product description for better aspect extraction.
  - **Research Paper Novelty Detection** (project supported by Microsoft Research Asia)
    Extracted graph-based features from entity-based citation networks to detect novelty of research paper. Applied as a content feature for the research paper citation prediction problem.
  - **General Sense Disambiguation** (project supported by Social Science Korea)
    Extended the conventional LDA topic model to better automatically induce word senses by introducing a special kind of word pair and mitigating the problem on sense granularities.
- Principal Investigator: Prof. Min Song

PUBLICATIONS

JOURNALS

[J4] R.K. Amplayo, H.J. Park, S.-w. Hwang, "Overcoming the Sparsity of Micro Reviews: A Generative Aspect Sentiment Model," *IEEE Transactions on Knowledge and Data Engineering*, under review, 2018.

[J3] R.K. Amplayo, S.I. Lee, M. Song, "Incorporating Product Description to Sentiment Topic Models for Improved Aspect Term Extraction," *Information Sciences*, accepted, 2018.

[J2] R.K. Amplayo, S.L. Hong, M. Song, "Network-based Approach to Detect Novelty of Scholarly Literature," *Information Sciences*, accepted, 2018.

[J1] R.K. Amplayo and M. Song, "An Adaptable Fine-grained Sentiment Analysis for Summarization of Multiple Short Online Reviews," *Data & Knowledge Engineering*, accepted, 2017.

CONFERENCES

[C11] R.K. Amplayo, S.-w. Hwang, M. Song, "Evaluating Research Paper Novelty Detection Models through Time and Impact," submitted to *COLING 2018*, Santa Fe, NM, 2018.

[C10] R.K. Amplayo, J.H. Kim, S.A. Sung, S.-w. Hwang, "Cold-start Aware User and Product Attention for Sentiment Classification," submitted to *ACL 2018*, Melbourne, Australia, 2018.

[C9] M.S. Cho, R.K. Amplayo, S.-w. Hwang, "Teaching Models the Operands to Learn Interpretable Answers for Question Answering on Tables," submitted to *IJCAI 2018*, Stockholm, Sweden, 2018.

[C8] R.K. Amplayo, S.-w. Hwang, M. Song, "Modeling Latent Features in Sense Topic Models for Word Sense Induction," submitted to *IJCAI 2018*, Stockholm, Sweden, 2018.

[C7] R.K. Amplayo, K.J. Lee, J.Y. Yeo, S.-w. Hwang, "Adding Domain-free Contexts through Translations for Sentence Classification," submitted to *IJCAI 2018*, Stockholm, Sweden, 2018.

[C6] R.K. Amplayo, S.J. Lim, S.-w. Hwang, "Entity2Topic: Selective Entity Semantic Representation for Neural Abstractive Summarization," *NAACL 2018*, New Orleans, LA, 2018.

[C5] J.Y. Yeo, G.B. Lee, G.Y. Wang, S.T. Choi, H.S. Cho, R.K. Amplayo, S.-w. Hwang, "Visual Choice of Plausible Alternatives: An Evaluation of Image-based Commonsense Causal Reasoning," *LREC 2018*, Miyazaki, Japan, 2018.

[C4] R.K. Amplayo, S.-w. Hwang, "Aspect Sentiment Model for Micro Reviews," in *ICDM 2017*, New Orleans, LA, Nov 2017.

[C3] R.K. Amplayo, M. Song, "Building Content-driven Entity Networks for Scarce Scientific Literature using Content Information," in *BioTxtM at COLING 2016*, Osaka, Japan, Dec 2016.

[C2] R.K. Amplayo, J. Occidental, "Multi-level Classifier for the Detection of Insults in Social Media," in *PCSC 2015*, Tuguegarao, Philippines, Mar 2015.

[C1] R.K. Amplayo, J. Occidental, "A Semantic Model for Evaluating Essays using Reflective Random Indexing," in *PCSC 2015*, Tuguegarao, Philippines, Mar 2015.

WORK EXPERIENCE

Ateneo de Davao University, Davao, Philippines

- Lecturer, Computer Science Department — Apr 2013 – Oct 2014
  - Courses Taught: Competitive Programming, Data Structures and Algorithms, Discrete Structures, among others.

Webzenga Hosting Solutions

- C# .NET Software Engineer — Nov 2012 – Jan 2013
  - Project: Academic Information System, Church Information System

Ingenuity, Davao, Philippines

- Django Software Engineer Intern — Apr 2012 – Jun 2012
  - Project: Payroll System

CERTIFICATIONS

- Coursera Certificates — 2014
  Machine learning courses: statistical inference, practical machine learning, regression models, among others
  Data science courses: computing for data analysis, exploratory data analysis, developing data products, among others
  Other courses: function programming in Scala, R programming, algorithmic thinking, among others
- Fundamental Information Technology Engineer, PhilNITS Foundation — 2012
  Given to individuals who have basic fundamental knowledge and skills required to be an advanced IT human resource
  One of only 14 passers. Passed the exam before graduation.

AWARDS & SCHOLARSHIPS

- Google Travel Grant for ICDM 2017, Google — 2017
  Provided travel and hotel fees to attend ICDM 2017 and present a paper.
- Korean Government Scholarship Program (KGSP) Award, NIIED — 2015 – 2018
  One of the few selected students to study with full scholarship in Korea.
  Includes language training, tuition, and living expenses fee, among others.
- Computer Science Department Award, Ateneo de Davao University — 2013
  For being the most outstanding computer science student in terms of both academic and extracurricular activities.
- Outstanding Thesis Award, Ateneo de Davao University — 2013
  For outstanding scientific research on automated essay grading.
- Consistent Placer, ACM - International Collegiate Programming Competition — 2012 - 2013
  6th place, ACM-ICPC Philippines 2012
  2nd place, ACM-ICPC Philippines 2013

- Consistent Champion, ICCF - Open Programming Competition 2012 - 2013
- Consistent Dean's Lister, Ateneo de Davao University 2009 – 2014
  For attaining a GPA of at least 90/100.

CAMPUS ACTIVITIES

Ateneo Programming Varsity, Ateneo de Davao University

- President 2011 – 2014
  - Trained members in data structures and algorithms for competitive programming

CS Student Executive Council – Programming Unit, Ateneo de Davao University

- Unit Lead 2011 – 2012
  - Lead the software development team in the realization of several projects.
  - Projects led include event registration system, voting and polls system, among others.

Ateneo Circle of Computer Studies Students, Ateneo de Davao University

- President 2010 – 2011
  - Organized events, technical workshops, and research forums for the students of Computer Science Department

LANGUAGES

- Cebuano: Native language.
- Filipino: Native language.
- English: Fluent. TOEIC 990 (highest), TOEFL 111.
- Korean: Fluent. TOPIK Level 6 (highest).
- Chinese: Basic.

SKILLS

Programming Languages: Python, Java, C, C++, C#, R, Scala, SQL

Libraries: Tensorflow, Theano, NLTK, scikit-learn, gensim, Mallet, Encog, Weka, Stanford CoreNLP

INTERESTS

Research, programming, meeting new friends.

[*CV compiled on 2018-03-16*]