

CV: Khoi-Nguyen Tran

CONTACT INFORMATION	IBM Research 60 City Road Southbank, VIC 3006 Australia	<i>Mobile:</i> +61 424 316 544 <i>Email:</i> kndtran@gmail.com <i>WWW:</i> kndtran.github.io
OBJECTIVE	To apply my research skills in industry by developing practical AI solutions for business.	
RESEARCH INTERESTS	Data Science, Machine Learning, Text Mining, AI for Business, Cybercrime.	
EMPLOYMENT	IBM Research – Australia	

- Postdoctoral Research Scientist. Cognitive Analytics. Jun 2016 – Current
 - Manager: Dr. Christopher J. Butler.
 - Developed end-to-end machine learning solutions for internal business units, from concept to production ready packages.
 - Developed techniques for chunking documents and generating learning objectives. Work recognised as division led expertise and a publication is under review.
 - Transitioned and improved past research components for business teams, introducing a new machine learning component and validation experiments, simplifying and parallelizing execution pipelines, and standardizing APIs for access with JARs and RESTful services.
 - Academic style research work included geolocation of Twitter tweets, detecting vandalism on Wikipedia, and predicting the price of an item.
 - 2 publications.

Australian Federal Government

- Data Scientist. Research and Development Team. May 2015 – Jun 2016
 - Developed modelling, profiling, and text analytics solutions in R and SQL.
 - Translated analysts' observations and business knowledge into code, producing data visualizations and reports.

Australian National University

- Research Assistant & Co-founder. Cybercrime Observatory. Mar 2013 – May 2015
 - Supervisors & Co-founders: Dr. Mamoun Alazab, Prof. Roderic Broadhurst.
 - Projects: Investigating Malicious Spam Emails, History of Cybercrime Activities.
 - Developed a novel detection technique for malicious content (attachments or URLs) using only email text.
 - 1 publication.
- Research Assistant. Research School of Computer Science. Jan 2011 – May 2015
 - Supervisors: Prof. Peter Christen, Dr. Scott Sanner, Dr. Lexing Xie.
 - Project: Detecting Abnormal Text Values.
 - * Researched techniques to automatically detect abnormal text values from large databases using only the distribution of text data within those databases.
 - Project: New Objective Functions for Social Collaborative Filtering.
 - * Developed a Facebook app to collect participants' data and recommend content from our novel collaborative filtering algorithms.
 - Project: Synthetic Data Generation and Corruption.
 - * Developed a user interface for a novel synthetic data generation method that mimics real-world errors through a variety of data corruption methods.
 - 3 publications. One for each project.

EDUCATION

Australian National University

- Ph.D. in Engineering and Computer Science. Feb 2010 – Jul 2015
 - Area of Study: Machine Learning Applications.
 - Thesis Title: *Detecting Vandalism on Wikipedia across Multiple Languages*.
 - Supervisors: Prof. Peter Christen, Dr. Scott Sanner, Dr. Lexing Xie.
 - 5 publications.
- Bachelor of Computer Science, with First Class Honours. Feb 2006 – Dec 2009
 - GPA: 6.75 / 7. Overall course average of High Distinction.
 - Honours Thesis Topic: *Semantic Sensor Composition*.
 - * Supervisor: Dr. Michael Compton.
 - * 3 publications.
 - Individual Research Projects: *Detecting Network Anomalies*.
 - * Supervisor: Dr. Huidong (Warren) Jin.
 - * 2 publications.

SKILLS

Languages:

- Experienced: Java, Python, R, SQL, HTML, JavaScript, Unix Shell Scripting.
- Familiar: Scala, CSS.

Software:

- Experienced: Scikit-learn, JQuery, Flask, MySQL, dplyr / tidyverse, Eclipse, PDFBox, GitHub, ZenHub, IBM Cloud, LaTeX, Word/Excel/Powerpoint, Ubuntu Linux, Windows, macOS.
- Familiar: Tensorflow, NumPy, Docker, Kubernetes, NLTK, Stanford NLP.

ACADEMIC AWARDS

Australian National University

- ANU Supplementary Scholarship, 2010–2014.
- Australian Postgraduate Award (APA), 2010–2014.
- ANU College of Engineering and Computer Science Dean's List, 2009.
- ANU College of Engineering and Computer Science Dean's Prize, 2008.
- Boyapati Prize for 2nd Year Computer Science and Mathematics, 2007.
 - Awarded to students obtaining a High Distinction (highest grade possible) in two computer science and two mathematics courses in their 2nd year of study.
- Bachelor of Computer Science (Honours) Scholarship, 2006–2009.

SERVICE

- Invited Researcher, 6th Heidelberg Laureate Forum, 2018.
 - 200 young researchers in mathematics and computer science are selected to participate each year from around the world.
- Mentor, Data Science and Machine Learning, 2017-2018.
 - 1 Masters student, 2017. 2 industry professionals, 2017-2018.
- Invited Talk, RMIT Vietnam, 2017.
- Invited Participant, Future Shapers Forum, 2017.
- Delegate, Australia-Vietnam Young Leadership Dialogue, 2017.
 - 19 delegates were selected from 375 applications.
- Volunteer, Australasian Data Mining Conference (AusDM), 2013.
- Volunteer, Open Source Developers' Conference (OSDC), 2011.
- Microsoft Student Ambassador, 2011–2012.
- Volunteer and President, ANU Computer Science Students' Association, 2007–2012.
 - Winner, Event of the Year 2012 and Runner-Up, Large Club of the Year 2012.

REFERENCES

Available upon request.