Ali Akbar Septiandri

Jakarta, Indonesia
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Education

2015 - 2016

The University of Edinburgh, UK – *MSc in Artificial Intelligence*

Awarded with Merit, specialised in Machine Learning
Advisor: Dr. Rik Sarkar
Dissertation: Predicting Usefulness of Reviews on Yelp (Distinction mark)

2009 - 2013

Institut Teknologi Bandung, Indonesia – *BSc in Informatics*

Advisor: Dr. Ayu Purwarianti
Thesis: Identification of Opinion Leaders on Twitter using Machine Learning Algorithms

Experience

APR 2020 - PRESENT

eFishery, Bandung, Indonesia – *Senior Data Scientist (Freelance)*

- Establish foundations of data science team
- Text mining from customer complaints
- Nowcasting commodity prices using time series analysis
- Analyse survey results

APR 2019 - MAR 2020

Airy Nest Indonesia, Jakarta, Indonesia – *Lead Data Scientist*

- Customer segmentation based on BG/NBD model for customer lifetime values (CLV)
- Property segmentation using contractual lifetime value (LTV) from survival analysis using Cox Proportional-Hazards model
- Establish research collaboration on NLP with ITB
- Experiment with state-of-the-art NLP model (BERT) for aspect-based sentiment analysis on hotel reviews
- Conduct workshops and internal sharing sessions
- Lead the analytics team of six people

OCT 2017 - MAR 2019

Airy Nest Indonesia, Jakarta, Indonesia – *Data Scientist*

- Design and analyse in-house conjoint analysis using Plackett-Burman design and logit, saving more than 75% of $42,000 cost for outsourcing the project
- Experiment on dynamic retail pricing of Airy properties using gradient boosted trees and neural networks with Keras/TensorFlow
- Propose and implement Bayesian search ranking, the analysis was done using PyMC3
- Cluster reviews, CS tickets, and survey results, using UMAP, DBSCAN, Latent Dirichlet Allocation
- Create queries using Presto and Redshift

FEB 2017 - PRESENT

Universitas Al Azhar Indonesia, Jakarta, Indonesia – *Adjunct Lecturer*

- https://github.com/aliakbars/uai
- Teaching Data Mining, Artificial Intelligence, Pattern Recognition, Python Programming, Soft Computing (Practical Deep Learning) using Python, matplotlib, numpy, pandas, scikit-learn, scipy
- Adapting materials from Stanford University (CS124, CS221, CS229, CS230, CS231n), the University of Edinburgh (IAML, MLP, MLPR), and Harvard University (CS109)

SEP 2013 - AUG 2015

Inovasi Sehat Indonesia, Jakarta, Indonesia – *CTO*

- Developed Android mapping application and personality test application
- Developed automated reporting system using Python-Django
- Field workers performance evaluation using anomaly detection
- Wrote a research paper about using machine learning to identify TB suspects via verbal screening, achieving a 24% increase in specificity while maintaining the sensitivity around 93%

Honors & Awards

- **3rd (out of 58 teams)**, UKARA 1.0 Challenge Track 1 by NLP Group Universitas Gadjah Mada *(Yogya, Indonesia, 2019)*
- **Top 5 (out of 498 teams)**, Go-Hackathon by Go-Jek *(Jakarta, Indonesia, 2017)*
- **National Winner**, Microsoft Imagine Cup World Citizenship Category *(Jakarta, Indonesia, 2016)*
- **Runner-up**, JP Morgan Chase & Co. Code for Good *(London, U.K., 2015)*
- **Awardee (~3.6% success rate)**, Indonesia Presidential Scholarship *(Jakarta, Indonesia, 2015)*
- **Top 10 (out of 99 teams from 77 universities)**, Data Mining Cup by prudsys *(Germany, 2013)*

Talks

- Nov. 2019 **Visualizing High-Dimensional Data**, PyCon ID 2019
- Nov. 2019 **AI in Reproductive Medicine**, ICE on IMERI 4.0
- Sep. 2019 **Feature Selection & Extraction**, IF4074 Pembelajaran Mesin Lanjut, Institut Teknologi Bandung
- Aug. 2019 **Intro to Data Science: Probabilistic Programming**, Tech-A-Tive
- Apr. 2019 **Machine Learning for Healthcare**, The 3rd OI-IMERI
- Nov. 2018 **Predicting the Gender of Indonesian Names**, PyCon ID 2018
- Apr. 2018 **How Technology Can Change Food Logistics**, Universitas Padjadjaran ISLICamp
- Dec. 2017 **TBDeCare: Innovation in tuberculosis detection and care**, The 2nd ICE on IMERI
- Oct. 2017 **Data Science for Business**, Astra Graphia IT
- Feb. 2017 **Our Lives in Data**, Executive Office of the President of the Republic of Indonesia

Proceedings

- Fernando, J., Khodra, M.L. and **Septiandri, A.A.**, 2019. Aspect and Opinion Terms Extraction Using Double Embeddings and Attention Mechanism for Indonesian Hotel Reviews. *arXiv preprint arXiv:1908.04899*.
- Salsabila, N.A., Winatmoko, Y.A., **Septiandri, A.A.** and Jamal, A., 2018, November. Colloquial Indonesian Lexicon. In *2018 International Conference on Asian Language Processing (IALP)* (pp. 226-229). IEEE.
- **Septiandri, A.A.** and Wibisono, O., 2017, January. Detecting spam comments on indonesia's instagram posts. In *Journal of Physics: Conference Series* (Vol. 801, No. 1, p. 012069). IOP Publishing.
- **Septiandri, A.A.** and Purwarianti, A., 2013. Identifikasi Opinion Leader pada Twitter dengan Teknik Pembelajaran Mesin. *Di dalam: Konferensi Nasional Informatika*.

Abstracts

- **Septiandri A.A.**, Rezqi, M., Aisyah, D.N., Ataka, A., Virdyawan, V., Marhaendro, D., Suryaningdiah, D., Rosyid, A.N., 2018. Evaluating the Performance of Automated Classification of Sputum Smear Slides for TB Diagnostics. In *IJCAI BOOM Workshop Abstract*.
- **Septiandri, A.A.**, Aditiawarman, A., Tjiong, R., Burhan, E. and Shankar, A., 2017. Improving Mass Tb Screening Using Cost-Sensitive Machine Learning Classification. In *B63. LATENT TUBERCULOSIS INFECTION AND EPIDEMIOLOGY OF TUBERCULOSIS DISEASE* (pp. A3991-A3991). American Thoracic Society.

Abstracts