Dewa Made Sri Arsa

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SUMMARY

A Udayana University (State University) and Universitas Indonesia (State University) graduate with two years research experience. Strong research and writing skills exemplified by published articles. High developed knowledge and skills in biomedical imaging, image processing both in low level and high level processing, and machine learning. Profound knowledge and skills in quantitative research methods. Organizational skills in organizing international conferences.

Prepared to teach courses related to and research on image processing, machine learning, artificial intelligence, data structure and algorithms, bioinformatics, and statistical modeling methods.

Experience in programming, blog, website, MobileApp, and analyze data. Trained in grant writing proposals, such as Penelitian Unggulan Perguruan Tinggi (PUPT) and Insentif Riset Sistem Inovasi Nasional (INSINAS) which were granted by Ministry of Research, Technology and Higher Education of the Republic of Indonesia.

EDUCATION

- **Faculty of Computer Science, Universitas Indonesia** — Depok, ID
  Master of Computer Science; GPA: 3.75 of 4 — *Feb. 2015 – Jul. 2016*

- **Faculty of Mathematics and Natural Sciences, Universitas Udayana** — Bali, ID
  Bachelor of Computer Science; GPA: 3.55 of 4 — *Aug. 2010 – Sept 19. 2014*

EXPERIENCE

- **Faculty of Computer Science, Universitas Indonesia** — Kampus UI Depok, West Java, ID
  Research Assistant — *Oct 2016 - Present*

SELECTED PUBLICATIONS

PUBLICATIONS

Draft

- **Phase Prediction for Embryo Quality Assessment on In Vitro Fertilization based On Visual Word Features**: **Dewa Made Sri Arsa**, Grafika Jati, Anom Bowolaksono, Budi Wiweko, and Wisnu Jatmiko

- **Femur Humerus Detection in Ultrasonography Images Based on Filtering Method**: **Dewa Made Sri Arsa**, Grafika Jati, Wisnu Jatmiko

Journals

- **Sparse Coding-Based Method Comparison For Land-Use Classification**: **Arsa, Dewa Made Sri**, Grafika Jati, and M. H. Hilman. Jurnal Ilmu Komputer dan Informasi 10, no. 2 (2017): 102-107.

- **Comparison of Image Enhancement Methods for Chromosome Karyotype Image Enhancement**: **Arsa, Dewa Made Sri**, Grafika Jati, Agung Santoso, Rafli Filano, Nurul Hanifah, and Muhammad Febrian Rachmadi. Jurnal Ilmu Komputer dan Informasi 10, no. 1 (2017): 50-58.

Proceedings

- **Improving Principal Component Analysis Performance for Reducing Spectral Dimension in Hyperspectral Image Classification**: **Dewa Made Sri Arsa**, H. R. Sanabila, M. Febrian Rachmadi, Ahmad Gamal, and Wisnu Jatmiko. In Big Data and Information Security (IWBIS), 2018 International Workshop on. **Presented, will be available soon on IEEEXplore**

- **Multicodebook Neural Network Using Intelligent K-Means Clustering based on Histogram Information for Multimodal Data Classification**: M. Anwar Masum, **Dewa Made Sri Arsa**, Indra Hermawan, Wisnu Jatmiko, Adi Nurhadiyatna. In Big Data and Information Security (IWBIS), 2018 International Workshop on. **Presented, will be available soon on IEEEXplore**

- **Telebiometric system for infant and toddler fingerprint recognition**: Ma'sum, M. Anwar, I. Gede Wahyu Surya Dharma, **Dewa Made Sri Arsa**, Wisnu Jatmiko, Setiadi Yazid, and Aniati Murni Arymurthy. In Micro-NanoMechatronics and Human Science (MHS), 2017 International Symposium on, pp. 1-7. IEEE, 2017.

- **Enhance generalized learning vector quantization using unsupervised extreme learning machine and intelligent K-means clustering**: Ma'sum, M. Anwar, **Dewa Made Sri Arsa**, Novian Habibie, and Wisnu Jatmiko. In Big Data and Information Security (IWBIS), 2017 International Workshop on, pp. 77-83. IEEE, 2017.

- **Optimization of Stacked Unsupervised Extreme Learning Machine to improve classifier performance**: **Arsa, Dewa Made Sri**, M. Anwar Ma'sum, Muhammad Febrian Rachmadi, and Wisnu Jatmiko. In Big Data and Information Security (IWBIS), 2017 International Workshop on, pp. 63-68. IEEE, 2017.

- **Dimensionality reduction using deep belief network in big data case study: Hyperspectral image classification**: **Arsa, Dewa Made Sri**, Grafika Jati, Aprinaldi Jasa Mantau, and Ito Wasito. In Big Data and Information Security (IWBIS), International Workshop on, pp. 71-76. IEEE, 2016.

- **A review of big data analytics in the biomedical field**: Jatmiko, Wisnu, **Dewa Made Sri Arsa**, Hanif Wisesa, Grafik Jati, and M. Anwar Ma'sum. In Big Data and Information Security (IWBIS), International Workshop on, pp. 31-41. IEEE, 2016.

- **Prediction the number of blastomere in time-lapse embryo using Conditional Random Field (CRF) method based on Bag of Visual Words (BoVW)**: **Arsa, Dewa Made Sri**, Ilham Kusuma, Anom Bowolaksono, Petrus Mursanto, Budi Wiweko, and Wisnu Jatmiko. In Advanced Computer Science and Information Systems (ICACSIS), 2016 International Conference on, pp. 446-453. IEEE, 2016.

Skills

- **Image Processing**: low level processing, high level processing (Deep Learning)

- **Machine Learning**: unsupervised learning (Restricted Boltzmann Machine, etc.), non linear and linear classification

- **Parameter Optimization**: gradient descent, evolutionary algorithms

- **Programming**: Matlab, Java, R, Javascript

Research Experience

- **In Vitro Fertilizations Monitoring System**: Predict the number of blastomere in embryonic cell
- **Augmented Reality**: Traditional musical instruments in virtual environment to open a ceremony
- **Telehealth System**: Intelligent Transportation System   Detect vehicle position from an image
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Areas of Research

Biomedical Imaging, Image Processing, Machine learning

Language

Indonesia and English

References

1. Prof. Dr. Eng. Wisnu Jatmiko — Full Professor at Faculty of Computer Science, Universitas Indonesia
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2. Prof. Stéphane Bressan — Associate Professor at School of Computing of National University of Singapore
   Email : steph@nus.edu.sg — phone: +65 65 16 35 43

3. Agus Muliantara, M.Sc. — Department of Computer Science, Universitas Udayana
   Email: m@unud.ac.id, muliantara@gmail.com — phone: +62 361 701 805