GREGORIUS GUNTUR SUNARDI PUTRA
Artificial Intelligence Researcher

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EMPLOYMENT

AiDiTech Labs – *Assistant Researcher*
Jun 2023 – Aug 2023
- Supervised by Windra Swastika, Ph.D.
- Researched Diabetic Retinopathy Detection and experimented on Hyperparameter Tuning for increase neural networks model for image classification.

AiDiTech Labs – *Junior Research Assistant, Intern*
Mar 2021 – Sep 2022
- Research on Plat Number Detection, Character Recognition, Malaria Parasite Detection based on Blood Smear Images, and Sentiment Analysis.
- Improving the model accuracy with 0.5% on Malaria Detection and gained 76% accuracy for Plat Detection.
- Publish 3 papers on international conference.

Universitas Ma Chung – *IT Dev*
Mei 2020 – Sep 2022
- Development of some features on Alumni Tracer Study (FDA, Exit Survey, and Tracer Study) using PHP, Node Js, and Monggo DB.
- Leading two divisions of 3–5 people, Data Analysis and Web Development, to analysis and reporting Tracer Study for accreditation purposes.

TEACHING

STIKES Hang Tuah Surabaya – *Assistant Lecture*
March 2024 – Present
- Delivered on-site lecture on "Analisis dan Perancangan Sistem Informasi Kesehatan" and "Data Mining".
- Marked students assignment and exam submissions.

Freelance Programming Mentor
Mar 2022 – Present
- Delivered basic programming tutorials, both online and on-site, with more than 50 people for middle school students, graduate students, and master students.
- Works in several locations includes but not limited to Rakryan Digitalent Hub, SMPK Santa Maria 01 Malang, PITCH Universitas Ma Chung, and Universitas Terbuka.
- Conducted tutorial on Python, Scratch, and Java, assisted students in doing their assignments, and graded their works.
- Providing feedback for learning and assessment format.

PROJECTS

DEMAR, author
  Development a high-quality steganography algorithm to hiding data in image cover.

BISINDO Alphabet Sign Recognition, author
  Neural networks model for translation BISINDO alphabetic to text translation.

TALKS

"Schizophrenia Human Book on Human Library Season 4"
FIB Universitas Brawijaya X Rotaract Malang Kutaraja   02 Sep 23

"Fly The Diversity on Social Connect Airlines"
Social Connect   15 Mar 22

"Schizophrenia Human Book on My Dear Human Library S2"
Rotaract Club of Malang Kutaraja   17 Apr 21

"Schizophrenia Human Book on Oh My Dear Man"
Rotaract Club of Malang Kutaraja   24 Oct 20

EDUCATION

Institut Teknologi Sepuluh Nopember Surabaya
M.Kom., (3.9/4.0)   Aug 2023 – Present
  Thesis:
    Vision Transformer Based on Spatial Attention for Detection and Classification of Gastrointestinal Diseases. Supervised by Prof. Chastine Fatichah, Shintami Chusnul Hidayati, and dr. Rusdiyana Ekawati.
  Course summary:
    Applied Data Science Programming, Time Series Data Analysis, Image Processing, Biomedical Computing, Text Mining, Computer Vision, Knowledge Based Engineering.

Universitas Ma Chung, Malang, Indonesia
S.Kom., (3.21/4.0)   Aug 2018 – Jul 2022
  Thesis:
    Machine Learning Optimization with Particle Swarm Optimization and Genetic Algorithm for Sentiment Analysis about Permendikbud 30/2021. Supervised by Windra Swastika and Paulus Lucky Tirma Irawan.

HONORS AND AWARDS

Top 10 Writing Competition RDI Indosaster 2023
    Oct 2023
  "Kita Sadar Bencana?" Essay about disaster awareness on community and government based the boiled frog syndrome and raising awareness through storytelling.

Top 10 Turnamen Sains Data Nasional (TSDN) 2022
    Nov 2022
- With Hanfrey Djaya as Hakken Teams.
- Develops BISINDO Sign Recognition using CNN with Transfer Learning and Deploy to Streamlit.

SKILLS

Natural Language

Native	Indonesia and Jawa
Intermediate	English
Beginner	Mandarin

Programming Language and Development Tools

Python, Scratch, Node JS, Java, Latex, Markdown Jupyter, TensorFlow, PyTorch, JSON, Excel, Visual Studio, GitHub, MySQL.

CERTIFICATION

Language

TOEFL	GLC–ITS	463/677	23–25
TOEIC	ETS–ITC	625/900	22–24

Other

CAIA	21–24

LINKS

GitHub	https://github.com/pagiguntur
Google Scholar	YY6piPUAAAAJ

Publications

G. G. S. Putra, A. W. C. D'Layla, D. Wahono, R. Sarno, and A. Haryono. "American sign language to text translation using transformer and seq2seq with LSTM," in *Proc. of The 2ⁿᵈ International Conference on Technology Innovation and Its Applications 2024*. Accepted.

E. A. Kusnanti, E. Sierra, G. G. S. Putra, E. S. Cahyadi, A. Haq, and D. Purwitasari. "Indonesian lexical ambiguity in machine translation: a literature review," in *Proc. of 2024 International Conference on Information Technology Research and Innovation (ICITRI)*. Accepted.

W. Swastika, G. G. S. Putra, R. B. Widodo, and R. Sitepu, "Hyperparameter tuning for malaria detection using convolution neural network," in *AIP Conf. Proc. of The 3ʳᵈ International Conference on Natural Sciences, Mathematics, Applications, Research, and Technology (ICON-SMART2022)*, Kuta, Indonesia, 2024, 3132 (1). https://doi.org/10.1063/5.0211294

A. W. C. D'Layla, M. Nevin, G. G. S. Putra, N. J. La Croix, and T. Ahmad, "Steganography in grayscale images: improving the quality of stego image," in *Proc. of 2023 3ʳᵈ International Conference on Smart Generation Computing, Communication and Networking (SMART GENCON)*, 2023, pp. 1–6.

G. G. S. Putra, M. Nevin, N. J. La Croix, and T. Ahmad, "Improving the imperceptibility of hidden data in digital image using difference expansion," in *Proc. of IEEE 2ⁿᵈ Industrial Electronics Society Annual On-Line Conference (ONCON)*, 2023, pp. 1–6. https://ieeexplore.ieee.org/abstract/document/10430422

M. Nevin, G. G. S. Putra, N. J. La Croix, and T. Ahmad, "Pixel block-based data hiding approach for enhanced payload capacity in spatial domain images," in *Proc. of IEEE 2ⁿᵈ Industrial Electronics Society Annual On-Line Conference (ONCON)*, 2023, pp. 1–6. https://ieeexplore.ieee.org/abstract/document/10430503

W. Swastika, B. J. Pradana, R. B. Widodo, R. Sitepu, and G. G. S. Putra, "Web-based application for malaria parasite detection using thin-blood smear images," *Journal of Image and Graphics*, vol. 11, no. 3, pp. 288–293, 2023. https://www.joig.net/show-84-352-1.html [pdf]

W. Swastika, B. J. Pradana, R. B. Widodo, R. Sitepu, and G. G. S. Putra, "CNN based transfer learning for malaria parasite detection using thin-blood images," in *Proc. of the 7ᵗʰ International Conference on Sustainable Information Engineering and Technology*, 2022, pp. 72–78. https://dl.acm.org/doi/abs/10.1145/3568231.3568243

G. G. S. Putra, W. Swastika, and P. L. T. Irawan, "Perbandingan particle swarm optimization dengan genetic algorithm dalam feature selection untuk analisis sentiment pada permendikbudristek PPKS-LPT," *Jurnal Edukasi dan Penelitian Informatika (JEPIN)*, vol. 8, no. 3, pp. 412–421, 2022. https://jurnal.untan.ac.id/index.php/jepin/article/view/57300