SPANDANA V.

Ph.D. in Computer Science

Specialization: Artificial Intelligence in Medical Data Analysis, Medical Imaging, and Aquaculture.

Taiwan Employment GOLD card Member

No workpermit needed to work in Taiwan

CONTACT ME @

Nankang district, Taipei City 11572, Taiwan.

https://www.linkedin.com/in/spandana-vadloori-79145b203/

EXPERTISE

- Deep Learning
- Data Mining
- ML
- Image Processing
- Fuzzy Inference
- Data Analysis
- Environmental–Economic Modeling

TECHNICAL SKILLS

- Programming: Python, Matlab, Basic C, HTML
- Frame Works: TensorFlow, NumPy, Pandas
- Scikit-learn, Matplotlib, TKinter
- RDBMS: Oracle, MS Access, and MS SQL
- Libraries: OpenCV Python
- MS Office: Excel, PowerPoint, Word

CERTIFICATIONS

- Python for Data Science, AI & Development (View)
- Deep Learning Specialization (View)

PROFESSIONAL SUMMARY

Passionate and self-motivated AI researcher, with strong academic and practical experience in developing predictive models and data-driven applications. Proficient in the end-to-end ML/AI and Data Science project lifecycle, including data collection, preprocessing, feature engineering, model development, hyperparameter tuning, and performance evaluation. Adept at applying data modeling and algorithmic techniques to solve real-world problems with accuracy and efficiency. Eager to contribute innovative ML solutions to impactful projects.

WORK EXPERIENCE

Postdoctoral Fellow **| Jun 2025 - Nov 2025**

Dept. of Bio-Environmental Sys. Engg., NTU, Taipei, Taiwan

- Design & implementation of statistical and AI models analyzing Typhoon dataset.
- Preparing project documentation and report.

Postdoctoral Fellow **| Sep 2024 - Jan 2025**

Institute of Statistical Science, Academia Sinica, Taipei, Taiwan

- Implemented machine learning models in Python to analyze RNA sequence data for predicting drug response in melanoma and metastatic urothelial carcinoma (mUC) patients.
- Designed and developed a GUI to facilitate drug response prediction. Typhoon data analysis using statistic models.

Data Scientist Consultant **| Aug 2024 - Sep 2024**

ASTI GLOBAL Information Limited, Taipei, Taiwan

- Developed deep learning models, including U-Net and SegNet, for retinal vessel and sclera segmentation.
- Analyzed blood sugar data using machine learning, implementing MLP and LSTM models for accurate blood sugar level prediction.

Postdoctoral Fellow **| Mar 2023 - Apr 2024**

NPUST, Penghu, Taiwan

- A novel FFAUNet algorithm has been proposed for fish feeding optimization with a higher accuracy of 95.6%.
- Applied image processing and statistical analysis to assess retinopathy of prematurity (ROP) severity in collaboration with doctors from Taiwan and Japan.

EDUCATIONAL HISTORY

Ph. D. in EECS (GPA 4.0) **| Sep 2018 - July 2022**

National Taipei University of Technology, Taipei, Taiwan

Master's in Computer Applications (MCA)

Kakatiya University, Telangana, India

PUBLICATIONS

- Y.-P. Huang, **S. Vadloori**, E. Y.-C. Kang, and W.-C. Wu, “Computer-aided detection of retinopathy of prematurity severity assessment via vessel tortuosity measurement in preterm infants' fundus images,” *Eye*, vol. 38, no. 17, pp.3309-3317, 2024 Dec, https://doi.org/10.1038/s41433-024-03285-w.

- Y.-P. Huang and **S. Vadloori** “Optimizing fish-feeding with FFAUNET segmentation and adaptive fuzzy inference system,” *Processes*, vol. 12, no. 8, pp.1-16, 2024 July, https://doi.org/10.3390/pr12081580.

- **S. Vadloori**, and Y.-P. Huang, “Fish-feeding optimization based on the feeding intensity on the water surface,” 2023 *International Automatic Control Conference* (CACS 2023).

- Y.-P. Huang **S. Vadloori**, E. Y.-C. Kang, and W.-C. Wu, “Computer-aided detection of retinopathy of prematurity severity in preterm infants via measurement of temporal vessel width and angle,” *Frontiers in Pediatrics*, vol. 10, no. 792724, pp.1-10, 2022 Jan, https://doi.org/10.3389/fped.2022.792724.

- Y.-P. Huang, **S. Vadloori**, H.-C. Chu, E.Y.-C. Kang, W.-C. Wu, S. Kusaka, and Y. Fukushima, “Deep learning models for automated diagnosis of retinopathy of prematurity in preterm infants,” *Electronics*, vol. 9, no. 9, pp.1-16, 2020 Sep, doi:10.3390/electronics9091444.

- **S. Vadloori**, Y.-P. Huang, and W.-C. Wu, “Comparison of various data mining classification techniques in the diagnosis of diabetic retinopathy,” *Acta Polytechnica Hungarica*, vol. 16, no. 9, pp.27-46, 2019 June, doi: 10.12700/APH.16.9.2019.9.3.

- **S. Vadloori**, Y.-P. Huang, and T. Lee, “Automatic screening of diabetic retinopathy using different data mining classifier techniques,” 2019 IEEE 23rd *Inter. Conf. on Intelligent Engineering Systems (INES)*, Gödöllő, Hungary, pp.000207-000212, 2019, doi: 10.1109/INES46365.2019.9109441.

AWARDS

- Best Paper Award at “2023 International Automatic Control Conference” held at National Penghu University of Technology, Penghu, Taiwan, for the work “Fish-Feeding Optimization Based on the Feeding Intensity on the Water Surface”

(Spandana Vadloori)