# Richard Cornelius Suwandi

Email: richardsuwandi@link.cuhk.edu.cn                Website: richardcsuwandi.github.io
Phone: +86 136 3278 2647                LinkedIn: linkedin.com/in/richardcsuwandi

## EDUCATION

- **The Chinese University of Hong Kong, Shenzhen (CUHK-Shenzhen)**                Shenzhen China
  *PhD in Computer and Information Engineering*                *Aug 2023 - May 2027 (Expected)*
  - **Supervisors**: Prof. Feng Yin, Prof. Tsung-Hui Chang
  - **Honors & Awards**: School of Science and Engineering Postgraduate Studentship
  - **Research Interests:** Bayesian Learning, Distributed Optimization, Trustworthy Machine Learning

- **The Chinese University of Hong Kong, Shenzhen (CUHK-Shenzhen)**                Shenzhen China
  *BSc in Statistics (Data Science Stream)*                *Sep 2019 - May 2023*
  - **Honors & Awards**: Full Tuition and Accommodation Scholarship, Guangdong Provincial Government Outstanding International Student Scholarship, School of Data Science Dean's List Award, Undergraduate Research Award
  - **Relevant Coursework**: Gaussian Process for Machine Learning & Signal Processing (Graduate-Level), Data Analytics, Machine Learning, Bayesian Statistics, Categorical Data Analysis, Regression Analysis, Statistical Inference, Statistical Software, Probability & Statistics, Linear Algebra, Calculus

## RESEARCH EXPERIENCE

- **Bayesian Learning for Signal Processing (BLSP) Group**                Shenzhen, China
  *Undergraduate Research Assistant*                *Jun 2021 - May 2023*
  - **Supervisor:** Prof. Feng Yin
  - Designed a novel grid spectral mixture kernel for Gaussian process with multidimensional input data
  - Developed two distributed learning frameworks for Gaussian process regression based on the successive convex approximation (SCA) and alternating direction method of multipliers (ADMM) algorithm
  - Presented a paper that was accepted to the 25th International Conference on Information Fusion (FUSION) 2022

- **Shenzhen Research Institute of Big Data (SRIBD)**                Shenzhen, China
  *Undergraduate Research Assistant*                *Jun 2020 - May 2021*
  - **Supervisor:** Prof. Tsung-Hui Chang
  - Investigated the federated matrix factorization (MF) problem for data clustering and recommender systems
  - Combined the alternating minimization and model averaging (MA) technique to solve the federated MF problem
  - Co-authored a paper that was accepted to the 46th IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP) 2021

## PUBLICATIONS

- **R. C. Suwandi**, Z. Lin, Y. Sun, Z. Wang, L. Cheng and F. Yin, "Gaussian Process Regression with Grid Spectral Mixture Kernel: Distributed Learning for Multidimensional Data," 2022 25th International Conference on Information Fusion (FUSION), 2022, pp. 1-8.

- S. Wang, **R. C. Suwandi** and T. -H. Chang, "Demystifying Model Averaging for Communication-Efficient Federated Matrix Factorization," ICASSP 2021 - 2021 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2021, pp. 3680-3684, doi: 10.1109/ICASSP39728.2021.9413927.

## TEACHING EXPERIENCE

- **MAT2040 Linear Algebra**                CUHK-Shenzhen
  *Teaching Assistant*                *Fall 2023*
  - **Instructor:** Prof. Feng Yin
  - Taught weekly tutorial sessions and held office hours for undergraduate students
  - Designed homework problems to help students apply the concepts covered in class
  - Assisted the course instructor by drafting announcements, grading homework, and preparing exams

## SKILLS

- **Programming Languages**: Python, R, SQL, Julia, MATLAB, C++
- **Data Science & Machine Learning**: NumPy, SciPy, Pandas, Scikit-Learn, TensorFlow, Keras, PyTorch
- **Database**: MySQL, PostgreSQL, MongoDB
- **Software & Tools**: Git, Docker, Jupyter, Colab, Visual Studio Code, RStudio, Vim, Excel, LaTeX
- **Operating Systems**: macOS, Windows, Linux