

Kevin Siswandi

吴建和

LEAD DATA SCIENTIST

Fluent in English, Mandarin Chinese (HSK 6), and Bahasa Indonesia, with good knowledge of German (CEFR B2).



Objective

Ten years of experience in Data and Advanced Analytics projects with expertise in applying statistical modeling to solve business problems. My goal is to leverage on my proficiency in machine learning and experience in stakeholder management to formulate data-driven solutions that enhance revenue, optimize operations, and mitigate risks to achieve your organization's strategic objectives.

Professional Experience

May 2023 – Present **Digital Place Ventures**, Singapore
Lead R&D Architect

Digital Place Ventures provides data and technology solutions in retail and logistics/supply chain.

- Lead the R&D and implementation of an inventory optimization system based on machine learning that keeps out-of-stock rate consistently below 1%, resulting in improved sales and revenue for the client.
- Collaborate with business stakeholders and IT team to design a better data integration process that results in 4x speedup of data processing time.
- Build a time-series forecasting model that accurately predicts sales of items at over 500 retail stores based on diverse features such as dates, promotions, and item/store characteristics.
- Implemented a chatbot incorporating LLM techniques and RAG that serves as a student assistant for a private university client.
- Develop CI/CD/CT capability to streamline development and operations using Cloud Build and Vertex AI in GCP.

Oct 2021 – Apr 2023 **DataSpark** (part of SingTel Group), Singapore
Senior Data Scientist

DataSpark processes large geospatial temporal mobility data to bring intelligence about people and places to enterprises.

- Develop an end-to-end solution that predicts how people are moving in Singapore and Australia using Telco data with 80% accuracy.
- Partner with researchers from a top university in Singapore for research and solutioning of data-driven transport models that improve and augment existing machine learning models.

Skills: PySpark, Jupyter, Linux, Git, Scikit-Learn, Shell Script.

Oct 2020 – Sep 2021	Universitätsklinikum (University Medical Center) Freiburg , Germany Statistician
	<p>The University Medical Center Freiburg is one of the largest hospitals in Europe and conducts state-of-the-art medical research as part of the Faculty of Medicine at the University of Freiburg.</p> <ul style="list-style-type: none"> • Drive knowledge discovery and synthesis by applying modern techniques in data science and machine learning for medical applications. <p>Skills: SQL, Statistical Analysis, R, Deep Learning</p>
Jun 2019 – Sep 2020	BioQuant , Heidelberg (Germany) Graduate Student Researcher
	<p>BioQuant is the interdisciplinary center for bioinformatics research at the Ruprecht-Karl University of Heidelberg.</p> <ul style="list-style-type: none"> • Develop novel methods based on applied mathematics and machine learning for predicting the dynamics of biochemical systems from time-series multi-omics data. • Prepare teaching materials and hands-on assignments for the machine learning chapter of a systems biology course targeted at bachelor and masters students at the Heidelberg University. <p>Skills: R, Python, TensorFlow, Genomic Data Science, DESeq2</p>
Jan 2016 – July 2017	NCS (part of SingTel Group), Singapore Data Scientist
	<p>NCS is an IT services firm that partners with governments and enterprises to deliver technology solutions.</p> <ul style="list-style-type: none"> • Implement high-performance production analytics systems that are adaptable to data and resilient to system failure for large clients in Singapore and Australia. • Design, develop, and deploy in-house data products.
Nov 2013 – Dec 2015	A*STAR Computational Resource Center (ACRC) , Singapore HPC Software Analyst
	<p>ACRC is part of A*STAR Institute of High Performance Computing (IHPC) that provides supercomputing capabilities to the entire A*STAR research community.</p> <ul style="list-style-type: none"> • Manage one of Singapore's most powerful HPC systems and Linux clusters (including VM's serving as in-house servers) that serve over 700 A*STAR researchers and their collaborators. • Promote the education of supercomputing to local universities and mentor Singapore teams for HPC competitions.

Education

2018-2020	Ruprecht-Karl University of Heidelberg , Heidelberg, Germany MSc. Scientific Computing Obtained highest grade classification in German grading system
	<p>Thesis: predicting the dynamics of biochemical systems from time-series multi-omics data.</p> <p>Took the course "Deep Learning for Computer Vision", taught by Prof. Björn Ommer (who is the author of Stable Diffusion).</p>

- 2009-2013 **National University of Singapore**, Singapore
 BSc. (Hons) in Physics
 Double minor in Economics and Nanoscience
 GPA: 4.38/5.0
- Thesis: An optimized numerical method for solving correlated quantum systems.
- 2012 **Imperial College London**, London, United Kingdom
 Exchange Student, Materials Science
- Project:** Transmission Electron Microscopy of novel nitrides for energy-efficient devices.
- 2006-2009 **SMA Sutomo 1**, Medan, North Sumatra, Indonesia
- Represented the province of North Sumatra for 2007 National Science Olympiad hosted in Surabaya and won bronze medal in Physics.

Presentations and Talks

- Oct 2023 **Workshop Facilitator/Instructor**
 Title: "Data Science for Biomedical Research in R"
 Invited by: Faculty of Medicine, Gadjah Mada University (Indonesia)
- Archive: https://www.instagram.com/p/CzI5jCURygd/?img_index=1
- April 2023 **Workshop Facilitator/Instructor**
 Title: "Introduction to the R Programming Language for Biomedical Research"
 Invited by: Faculty of Medicine, Gadjah Mada University (Indonesia)
- March 2021 **Contributed Talk**
 Title: "A Machine Learning Approach to Empirical Dynamic Modeling for Biochemical Systems"
 Statistical Machine Learning, Biometrisches-Kolloquium 2021 (Germany).
https://www.biometrisches-kolloquium2021.de/wp-content/uploads/2021/03/AbsBand_TestI_v18.pdf
- April 2020 **Symposium**
 Title: "Predicting the dynamics of biochemical systems from time-series multi-omics data"
 Organized by: BioQuant, Heidelberg (Germany)
<https://lab.pahle.org/2020/04/16/talk-at-the-online-bioquant-internal-seminar-by-kevin-siswandi/>

Github: <https://github.com/physicist91>

Other Information

- Kaggle:** <https://www.kaggle.com/kevins>
- Bronze medal in Santander Value Prediction Competition (2018), using a machine learning model to identify the transaction value of a potential customer.
 - Bronze medal in TalkingData Challenge (2016), using a machine learning model to predict user demographics based on app use.