2.5-Year Software Developer Graduating with Masters in Data Science

Name	TAN Yee Sern	Contact	Code respository
Nationality	Malaysian	+6017 355 0627	
(dob)	12 Apr 1987	tanyeesern@yahoo.com	https://github.com/ystan87/coursework

Work Experience

***The Center of Applied Data Science*, Kuala Lumpur, Malaysia   Jan 2018 – present**

Data Scientist Trainer

***Muehlbauer Technologies*, Melaka, Malaysia   Jun 2015 – Mar 2016**

Software Engineer (Automation Machine Software in Semicon Fab)
- Develop and Maintain Codes in C and C# with Visual Studio
- Programming with state machines and interfacing with programmable logic controllers
- Interface networking among various network IP's installed on machine
- Travel for on-site debugging and solving problems
- Implement version control and integration among features
- Acronis image Backup and Recovery
- Conformity to industry standards

***VisDynamics Research Sdn Bhd*, Melaka, Malaysia   Aug 2013 – Jun 2015**

Software Development Engineer (Image Processing Software)
- Develop and Maintain Codes in C++ with Visual Studio
- Object-oriented, functional, and event-based programming
- Respond to Customer Enquiries and Requests
- Improve image processing algorithms

***World Scientific Publishing Group*, Singapore   Jun 2009 – Oct 2011**

Mathematics and Physics Editor
- inviting authors in math and physics (on tertiary and research levels)
    - negotiating agreements with authors for copyright and publication responsibility
- developing the position of academic journals
    - consulting Editorial Board members
    - improving Impact Factor and measures
    - securing sufficient author submissions
    - facilitating and implementing peer-review
        - directing and monitoring correspondences with academicians to ensure neutrality
        - iThenticate® filtering of plagiaristic papers to ensure originality
- answering email queries
- project coordination
    - scheduling and delivering book and journal publications
    - assigning priorities, ensuring time-constraints are met and obtaining requisite approvals
    - scheduling manuscript editing flow with author, typesetter, proofreader and printer
- preparing and estimating journal budget with management and accounts department
- specifying author requirements on design of book cover to artist

Education

***Indiana University Bloomington,* USA**   **Aug 2016 – Dec 2017**

Online Masters in Data Science

    Projects
- Dynamics of International Migration (extract data, perform analysis using Python and deploy with automated script)
- Replicate results of paper on neuroscience connectomics (Jupyter Notebook)
- Visualize and Interpret uptake of ORCID among Researchers Worldwide (Tableau)
- Design and implement a web-application using MySQL Workbench, MySQL, and Java, enabling CRUD operations on a browser-launched website running on Tomcat
- Factors Affecting the Length of Stay and Readmission Rates among Cystic Fibrosis Patients

Artificial Intelligence
- Blind and heuristic search, adversarial games, probability sampling and machine learning

Machine learning
- Regression: linear, GLM, residual analysis, nonparametrics, ordinal, regularization
- Classification: Decision Trees, boosting, random forest, SVM, ANN, kNN
- Clustering: k-Means, hierarchical, DBSCAN, t-SNE, outlier detection
- Other: PCA, time-series, HMM, graphical models, mixture models, semi-supervised learning
- Methods: Bayes, MAP, MLE, AIC, BIC, SGD, Gibbs sampling, CV, Holdout, Bootstrap

Managing Data
- Data pipelines, data provenance, data cleaning, data sharing, metadata (DTD, XML, JSON)
- RDBMS, NoSQL (MongoDB, HBase, Neo4j)
- Cloud computing (Hadoop, MapReduce, parallelism thinking)
- Exploratory data analysis, statistical hypothesis testing

Network Science
- Graph processing on metrics that include small world graphs, scale-free graphs, centralities, communities, random graphs, robustness and spreading behavior

Information Visualization
- Visualizing temporal, geospatial, topical, and network-graphical aspects

Security
- Threat modeling and search for known vulnerabilities
- Input validation, static code analysis, OS security, trusted computing

***Nanyang Technological University,* Singapore**   **Aug 2005 – Jan 2009**

Bachelor of Science (with 1st class honours)

Major in Mathematical Sciences

    Specialization in Applied Mathematics

    Focused on discrete mathematics (combinatorics, coding theory, graph theory, number theory)

    Appreciation of operations research, numerical analysis, algorithms

    Participated in entrepreneurship project

    Written a business plan on Korean Finger Food Outlet in a group of 7

Pay Fong High School, Malaysia   **2000 – 2004**

    Chinese-based education

    Science stream

    Participated in 4 math olympiads

IT Skills
- Programming in C++, Python, Java, C, C#, ASM
- Statistical analysis in R
- Hadoop platform
- Linux and Windows command line tools

Languages

	Written	Spoken
English	Good	Good
Mandarin Chinese	Good	Good
Bahasa Melayu	Medium	Medium