

2.5-Year Software Developer pursuing Masters in Data Science

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Work Experience

Muehlbauer Technologies, Melaka, Malaysia

Jun 2015 – Mar 2016

Software Engineer (Automation Machine Software for Die-Sort Process in Semicon Fab)

- Develop and Maintain Codes in C and C# with Visual Studio
- 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

- Develop and Maintain Codes in C++ with Visual Studio
- Respond to Customer Enquiries and Requests
- Teamwork in code development
- Test and debug self-written codes
- Conduct GRR (repeatability) tests

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 – Present

Online Masters in Data Science (graduating Dec 2017)

Elements of Artificial Intelligence

- Various methods in search, adversarial games, probability sampling and machine learning
- Coding assignments on blind and heuristic search, n-k-cohcoh (adversarial game), HMM, Naïve Bayes, Decision Tree, Nearest Neighbor, AdaBoost, and Neural Networks
- Wrote and optimized backprop code for neural networks with one hidden layer

Big Data Applications & Analytics

- Detailed introduction to the world of big data applications
- Culmination in a written and deployable project (shell script) with analysis code (python)

Management, Access and Use of Big and Complex Data

- Data pipelines, NoSQL databases, and issues arising out of managing big data
- Worked on MongoDB

Network Science

- Complex systems: understanding, modeling and hypothesis testing
- Graph processing on metrics that include small world graphs, scale-free graphs, centralities, communities, random graphs, robustness and spreading behavior
- Replication of results from paper: An Edge-centric Perspective on the Human Connectome: Link Communities in the Brain (MA de Reus et al., 2004)

Cloud Computing

- Understanding virtualization technologies
- Parallel programming: Java coding using Hadoop for pleasingly parallel, MapReduce, and iterative MapReduce, and the collective communications tool Harp (subset of MPI)
- Java coding for working on HBase database

Systems & Protocol Security & Information Assurance

- Threat modeling and searching online for list of known vulnerabilities
- Introduction to penetration testing
- Coding stack buffer overflow attacks and implementing preventive measures
- Input validation
- Static code analysis
- OS security, security hardening and trusted computing
- Logging and auditing

Information Visualization

- Visualizing temporal, geospatial, topical, and network-graphical aspects
- Teamed up with 3 members for a client project on ORCID researcher identifiers

SQL and NoSQL

- RDBMS and related schema design and implementation
- Metadata for NoSQL using XML
- Introduction to Neo4j
- Designed, implemented, and documented SQL web application on CRUD operations
 - o Deployable with MySQL, Tomcat, and a browser.
 - o Development used MySQL workbench, JDBC, Java, Maven, Rest Jersey, Javascript and plugins. TDD is implemented with JUnit.

Data Science for Drug Discovery, Healthcare and Translational Medicine (in progress)

Applied Data Mining (in progress)

Nanyang Technological University, Singapore**Aug 2005 – Jan 2009**Bachelor of Science (with 1st class honours)

Major in Mathematical Sciences

Specialization in Applied Mathematics

Appreciation of operations research, numerical analysis, algorithms and discrete mathematics

Taken three courses on environmental management

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

Serviced for math society, boys scout and prefects in extra-curricula activities

IT Skills

- Programming in C++, Python, Java, C, C#, assembly
- Statistical analysis in R
- Hadoop, Spark platform
- Linux and Windows command line tools and shell scripting
- Database modeling, design, creation and use with MySQL, MongoDB, Neo4j
- Secure coding and vulnerability analysis
- Visualization using Tableau

Languages

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