TING-YUN (DANIEL) LAN

• DanielLan2015@u.northwestern.edu
• http://www.linkedin.com/in/daniellan2015
• (331)-330-0415

EDUCATION

NORTHWESTERN UNIVERSITY, Evanston, USA — Sep 2015 – Dec 2016
Master of Engineering Management, McCormick School of Engineering and Applied Science
Concentration in Managerial Analytics, Machine Learning, and Optimization.

UNIVERSITY OF SOUTHERN CALIFORNIA, Los Angeles, USA — Aug 2009 – May 2011
M.S., Viterbi School of Engineering, Ming Hsieh Department of Electrical Engineering

NATIONAL CHIAO TUNG UNIVERSITY, Hsinchu, Taiwan — Sep 2004 – Jun 2008
B.S., Department of Electrical and Computer Engineering
Design projects in Java, Object-Oriented programming, data structures, control system, digital signal processing.

PROFESSIONAL EXPERIENCE

DELTA ELECTRONICS, Taipei, Taiwan
Senior Project Engineer — Jun 2014 – Aug 2015

Data Analysis and System Optimization

- Led research projects in energy and battery management application, to perform data analysis of customers' user behavior, and recommend optimized system and product design.
- Key achievements include:
  - Optimized power management of portable multi-sensor product to extend operating time and battery life.
  - Implemented cost-saving strategies with machine learning algorithm and demand response optimization with genetic algorithms in energy management system.

Knowledge Management of Sensing and Control Technologies

- Applied text analytics for taxonomy automation of battery technologies and constructed ontology model of IoT sensing and control technologies into corporation's knowledge management system.
- Devised recommendation system for electric components (sensors and actuators) from the inventory management system to help managers and sales representatives search and recommend product specifications and requirements for clients.

DELTA ELECTRONICS, Taoyuan, Taiwan
Senior Software Engineer — Sep 2011 – May 2014

Software System Design and Project Management

- Developed the embedded software system in hybrid vehicle controller with a Fortune 100 German car manufacturer. Key tasks included schedule and work planning, customer requirement analysis, software system design and product V&V plan.
- Managed software team of six software engineers to organize embedded system design and software integration. Achieved 50% reduction in development time for application lifecycle management.

System and Software Testing Management

- Led system and software testing of hybrid vehicle controller including black-box and white-box testing techniques
- Worked on software testing with static and dynamic program analysis to critically analyze and improve software quality
- Built system integration platform with hardware-in-the-loop simulation to verify and validate product reliability

Product Safety Analysis and Safety Design

- Oversaw weekly review with mechanical, hardware, thermal and software team members in order to solve product safety issues and enhance safety design in accordance with validation and verification process in automotive safety standards.
- Led review committee to consolidate quantitative methods for failure mode and effect analysis, safety measures, and safety functions to fulfill customer safety requirements, and improve diagnostic coverage and reliability.

CERTIFICATIONS

Certified Analytics Professional (CAP®), INFORMS

SKILLS

Programming Languages: C, C++, Java, Python, VBA
Database Management: Microsoft SQL Server, MySQL, MongoDB, Neo4j, Cassandra
Analytics Tools: Excel, Matlab, R, SAS, IBM SPSS, Python (SciPy, NumPy, Pandas, NLTK)
Machine learning/ Deep Learning: scikit-Learn, Theano, Caffe, Keras, Lasagne, Tensorflow, Torch
Business Intelligence/ Data Visualization: Tableau, Watson Analytics, d3.js, ggplot
Distributed Computing: Hadoop, MapReduce, Pig, Hive, Hbase, Spark, Elasticsearch
Mathematical Optimization Software: AMPL/ CPLEX, IBM ILOG CPLEX