
Curriculum Vitae

Biodata



First Name, Last Name Yi Ling, Hwong

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Date of Birth 19 February 1983

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Profile

Highly versatile, creative and motivated individual equipped with extensive international experience. Graduated with a Master of Engineering from Germany, working as an engineer at the European Organization for Nuclear Research (CERN) under the Marie Curie Fellowship Program. Passionate writer with a vast interest and knowledge in a variety of scientific domains. Aspires to establish a career in Science Communication. Founder of a creative scientific newsletter and has written for several publications to date. At her best when she is working with people and is given challenging goals. Possesses an eye for accuracy and able to work effectively within teams. Speaks five languages and an excellent communicator, acknowledged for the effective generation of outstanding ideas and solutions within a demanding time frame.

Career and Training

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|----------------------------|--|---|
| May 2011 – current | CERN – European Organization for Nuclear Research
<i>Knowledge and Technology Transfer department</i> | <ul style="list-style-type: none">• Science communicator as part of the Marie Curie Fellowship training• Implementation of communication strategy for scientific events• Print and digital publication• Video and audio production |
| Dec 2008 – May 2011 | CERN – European Organization for Nuclear Research
<i>CMS experiment Detector Control System group</i> | <ul style="list-style-type: none">• Fellow under the Marie Curie Fellowship Program funded by the European Commission• Employment in the field of Data Acquisition, Electronics and Optoelectronics for the Large Hadron Collider Experiments (ACEOLE)• Main developer of the Analysis Toolkit of Finite State Machines for the CMS Detector Control System |
| Mar 2008 – Aug 2008 | CERN - European Organization for Nuclear Research
<i>Cryogenics and Control Engineering department</i> | <ul style="list-style-type: none">• Completion of Master Thesis employed as Technical Student• Thesis title: Development of the Control System for A Liquid Helium Production Plant for the Large Hadron Collider Experiment• Grade: 1,0 (<i>very good</i>) |

Sep 2007 – Feb 2008	Siemens Corporation <i>Karlsruhe, Germany</i>	<ul style="list-style-type: none"> • Practical training (internship) • Development, configuration, test and specification of burglar alarm system (Multi-Partition-Keypad) • Programming of Philips LPC213x Microcontroller (C/C++)
Sep 2005 – Feb 2006	Siemens Corporation <i>Karlsruhe, Germany</i>	<ul style="list-style-type: none"> • Practical training (internship) • Employment in Siemens Building Technology (SBT), Electronic factory (EWK), Process Instrumentation and Analytics (PI&AS) • Production of switchbox for video and audio crossbar • Basic mechanical and electrical skills
Feb 2004 – Mar 2004	University of Applied Sciences <i>Heilbronn, Germany</i>	German Technical Language Course
Jan 2004	Radolfzell, Germany	Cultural Integration Course
Dec 2002 – Nov 2003	German-Malaysia Institute (GMI)	Industrial Training

Education

Jan 2011 – current <i>(Graduation foreseen: 2013)</i>	The Open University <i>United Kingdom</i>	<ul style="list-style-type: none"> • Master of Science, M.Sc, in Science Communication – Science in Society
Mar 2004 - Oct 2008	University of Applied Sciences <i>Karlsruhe, Germany</i>	<ul style="list-style-type: none"> • Master of Engineering, M.Eng (<i>Diplom Ingenieur</i>) in Power Engineering • Under full scholarship from the Malaysian government • Grade: 1,4 (<i>very good</i>)
Jun 2001 – Dec 2003	MARA Technical University <i>Shah Alam, Malaysia, International Education Centre (INTEC)</i>	<ul style="list-style-type: none"> • GCE Advanced Level (A-Level) • Grade: A (Three subjects: Mathematics, Further Mathematics, Physics)
1996 – 2000	Penang Chinese Girls' High School <i>Penang, Malaysia</i>	<ul style="list-style-type: none"> • Malaysian Certificate of Education (SPM – <i>Sijil Pelajaran Malaysia</i>) • Grade: A1 (Eleven subjects including Science and Advanced Mathematics)
1990 - 1995	Kong Min Pusat Primary School <i>Penang, Malaysia</i>	<ul style="list-style-type: none"> • Malaysian Primary School Assessment Test (UPSR – <i>Ujian Pencapaian Sekolah Rendah</i>) • Grade: A (Six subjects)

Conferences and Publications

- Oct 2009** 12th International Conference on Accelerator and Large Experimental Physics Control Systems (ICALEPCS) in Kobe, Japan
- Paper author: The Compact Muon Solenoid Detector Control System [\[link\]](#)
 - Poster presentation: An Analysis of the Control Hierarchy Modeling of the CMS Detector Control System [\[link\]](#)
- Jul 2010** EuroScience Open Forum (ESOF) in Torino, Italy
- Poster presentation: the Finite State Machine Analysis Toolkit (FiSMAT)
- Oct 2010** 18th International Conference on Computing in High Energy and Nuclear Physics (CHEP) in Taipei, Taiwan
- Paper author and conference speaker: An Analysis of the Control Hierarchy Modeling of the CMS Detector Control System [\[link\]](#)
- Apr 2011** Fundamentals of Software Engineering (FSEN) in Tehran, Iran
- Paper co-author: Analyzing the Control Software of the Compact Muon Solenoid Experiment at the Large Hadron Collider [\[link\]](#)

Creative Writing and Other Publications

- Dec 2008 – current**
- Founder and Chief Editor of the Creative Voices™ Newsletter of the CERN Student Club [\[link\]](#)
 - Article author for Creative Voices
 - “Higgs and Kitten” [\[link\]](#)
 - “Nirvana Restaurant Review” [\[link\]](#)
 - “Aliens and Predators” [\[link\]](#)
 - “The Marie Curie Actions Fellowship Program: A Personal Account” [\[link\]](#)
 - “Roots” [\[link\]](#)
 - Article author for CERN Courier
 - “Ankara hosts inaugural ISOTDAQ School” [\[link\]](#)
 - Writer for the RESPECT (Refugee Education Sponsorship Program) Organization e-zine
 - “KANERE – Stepping into A New Year” [\[link\]](#)
 - “The Ripples from A Teacher: Freja’s Story” [\[link\]](#)
 - “A small but big difference – Eye to Eye Child Care” [\[link\]](#)

Technical Proficiencies

Computer Applications	MS Office (Words/Excel/Power Point), LaTeX, Adobe InDesign
Operating Systems	Windows, Linux
Programming Language	C/C++, Python, JAVA, Assembler 51, PL/SQL, HTML
Programmable Controller System	SIMATIC Step 5 (S5), Step 7 (S7)
Software	Matlab, PVSS, ASF+SDF Meta Environment (compiler development)
Formal Verification Methods	mCRL2, modal mu-calculus, Bounded Model Checking

Language Proficiencies

(Scale: 1 – basic, 5 – very good)

Mandarin	5 (mother tongue)
English	5 (IELTS band 9: Expert User)
Malay	4
German	4 (DSH Grade 1,6 – very good)
Chinese Dialects (Cantonese and Hokkien)	4
French	3

Honors and Awards

2001 – 2008	The Malaysian Public Service (JPA) Scholarship
2009 – 2011	The Marie Curie Fellowship awarded by the European Commission under the 7 th Framework Programme

Interest / Hobbies

Music (Piano, Violin, Viola, Guitar, Flute), Writing, Science, Traveling, Reading, Salsa, Entrepreneurial ventures

Sports – Table Tennis, Badminton, Squash

Other Achievements

Member of the Penang Symphony Orchestra, Malaysia (1992 – 2003)

Malaysia's representative (viola) at the 4th ASEAN Youth Music Workshop in Bangkok, Thailand (1996)

Participant of the Kumamoto International Music Festival in Japan (1996)

Performer's Certificate in solo piano from the Trinity College London (1997)

Chief Editor of the Penang Chinese Girls High School graduation magazine (2000)

Chief program director of the 3rd annual national singing competition (*Ka-Show*) in Karlsruhe, Germany (2007)

Vice President of CERN Student Club (2009 – current)

Nominee - UNV Online Volunteering Award 2010

Managing team for student resources - LHC physics centre at CERN (LPCC) (2010 – current)

Founding member and keyboardist of band - Miss Proper and the Moving Targets (2009 – current)