Ethan Mok Ming Foong

Improving the world through the power of scalable technologies

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WORK EXPERIENCE

Software Engineer, *Motivo Inc. (San Francisco Bay Area)*   **Jan 2016 — Dec 2016**

Lead developer for a custom application to support search and navigation of a specialised semiconductor design graph with 2 billion nodes

- Design, deployment, development & testing of application that seamlessly integrates three major technologies (Neo4j, JavaFX & GraphStream) after evaluation of 11 graph visualisation and server technologies
- Design of database schema, tuning, deployment & testing of Neo4j Server which supports traversal of the specialised graph to allow reads up to 19k nodes/s
- Worked with technical team & users to improve the usability and accessibility of the application based on user feedback and principles of user-centered design (e.g. developed custom graph visualisation formats to allow users to visually differentiate up to 100 nodes simultaneously)

Software Intern, *Jublia (Singapore)*   **May 2015 — Jul 2015**

Developer for various tools to improve user experience and identify user segments

- Redesigned natural language processing algorithm to improve accuracy of web scraper for company details from 59% to 87%
- Designed a new version of a computer-generated performance report to track event networking ROI, personalized for each user based on data-driven insights obtained from over a 100k user profiles

EDUCATION

National University of Singapore, *B.Eng. (Chemical Engineering) (Hons.)*   **Aug 2014 — May 2017**

Expected Honours: Honours (Highest Distinction)

Awards: Global Engineering Programme Scholarship (3-year Direct Honours for the top 1% of engineering students), NUS Overseas College Scholarship (1 year full-time employment at a startup while studying at Stanford University)

Stanford University, *Stanford Center for Professional Development*   **Jan 2016 — Dec 2016**

Graduate courses completed: Machine Learning, Computational Methods for Biomedical Image Analysis

Raffles Institution   **Jan 2006 — Dec 2011**

Awards: Fencing National Interschool Championships Team 2nd (2011) Chinese Orchestra SYF Silver (2009) Wan Boo Sow Prize for Top in Chinese Language (2006-2008)

EXTRA-CURRICULAR ACTIVITIES

Yishun Reading Stars, Students' Care Service, *Treasurer*   **Aug 2015 — Dec 2015**

Volunteered at Students' Care Service in their Reading Odyssey program by teaching 20 students, aged 7-9, for a year and a half Managed the committee's expenditure and liaised with National University of Singapore for financial and administrative procedures. Conceptualized, implemented and managed a reward system to improve beneficiaries' learning. Sourced for various items on global marketplaces to build a cost-effective inventory to sustain the reward system.

Orbital 2015, *Gemini Award (Silver equivalent)*   **May 2015 — Aug 2015**

Implemented a Django web application on the Heroku platform to recommend and schedule events between Facebook friends.

Project Cheway, *Member (Operations)*   **Oct 2014 — Jul 2015**

Evaluated various reed bed designs from literature to design and prototype a reed bed treatment system, which was later fully constructed Tacloban, Phillipines, to convert 432 litres of soap water to 100 litres of agricultural water for 37 households daily

Innoventure 2014, *Finalist*   **Aug 2014 — Mar 2015**

Designed, prototyped and pitched a portable and mobile dispensing platform for distribution of gasoline in a cheap and safe manner at French Polynesia with a team of students from different disciplines to Total

- Evaluated and sourced various materials to build and design a robust product that matched industrial regulations for petroleum
- Liaised with Total Oil Asia-Pacific Pte Ltd to understand the industrial and customer requirements for the product to design a desirable business model

SKILLS & INTERESTS

Spoken Languages: English, Mandarin **Languages:** Python, Java, MATLAB, JavaScript, R, SQL, HTML, CSS
Technologies: Neo4j, Docker, Heroku **Frameworks:** Django, Maven, Bootstrap **Development Platforms:** JavaFX, Android
Simulation Tools: ASPEN HYSYS, SolidWorks, ANSYS Fluent **Others:** Git, Microsoft Office
Interests: Cognitive Psychology, Digital Games, Entrepreneurship, Investments, Community Service