### **EDWARD CHEUNG**

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### **EDUCATION UNIVERSITY OF MICHIGAN**

Ann Arbor, MI

College of Engineering

Master of Science in Structural Engineering, April 2014

- Tauber Institute for Global Operations Fellow
- GPA: 3.6/4.0

Bachelor of Science in Civil and Environmental Engineering, April 2013

- GPA: 3.8/4.0, Summa Cum Laude
- Concentration in Structural Engineering/Construction Management
- International Minor in Engineering
- Admitted to Engineering Global Leadership Honors Program

# **EXPERIENCE** 2015-Present

### SELF-EMPLOYED Full-Stack Developer

New Orleans, LA

- Self-taught and experienced in modern web technologies including HTML5, CSS3, JQuery, Bootstrap, React.js, D3.js, Node.js, MongoDB, Heroku deployment
- Completed 12-week Object-Oriented Programming with Java course offered by University of Helsinki, with emphasis in key OOP principles (encapsulation, abstraction, polymorphism, inheritance)
- Acquired FreeCodeCamp Front-End Development certification; created responsive web apps while practicing use of web APIs and advanced algorithms
- Completed 7-week M101JS: MongoDB for Node.js Developers course; learned NoSQL database structure and implemented back-end of MongoMart app as final project

#### 2014-Present

# SHELL INTERNATIONAL EXPLORATION AND PRODUCTION INC. Offshore Structures Engineer New Orleans, LA

- Engineer in Secondary Steel Facilities Design Team, responsible for design of topsides structural steel in Gulf of Mexico production platforms.
- Developed script in Excel VBA to convert equipment data to input for structural analysis, reducing engineering effort and chance for data entry errors
- Consolidated equipment data from engineering disciplines and disseminated monthly reports to various stakeholders; revamped existing spreadsheet by presenting data targeted towards end-users
- Developed matrix structural analysis tool in Excel VBA to allow mass scripting of repeated pipe support analyses; determined edge cases of pipe support sizing, leading to reductions in platform weight and cost
- Led effort on advanced structural analyses, including dynamic analyses on high-speed rotating equipment and finite-element analysis of crimp plate performance to ensure platform reliability and safety.

#### 2011-2014

# UNIVERSITY OF MICHIGAN STEEL BRIDGE TEAM Co-Captain

Ann Arbor, MI

- Led design and fabrication of 1/10th scale model bridge to compete in National Conference; bridge judged on build time, deflection, weight efficiency, aesthetics
- Managed extensive load testing program to highlight and troubleshoot local and global structural deficiencies; developed remedial strategies to meet strict fabrication deadlines
- Developed linear program implementing simplex algorithm to optimize for fastest build order given limited worker, resource, and spacial constraints
- Managed schedule among team members to ensure timely completion of design and fabrication milestones while mentoring new members to develop skills necessary to contribute to team success

#### **ADDITIONAL**

- Mentor of Asian-Pacific American 101 (APA 101), student-led organization discussing current social issues pertaining to Asian Americans
- Working knowledge in Cantonese, proficient in Japanese