Oliver Liang
905-616-1318
Portfolio: www.engturtle.com
oliver@engturtle.com

ACHIEVEMENTS

- Team proposal for Raccoon-Proof Green Bins featured on Citytv and CBC Radio
- Elected Engineering Science Class representative in 2013
- University of Toronto President Entrance Scholarship
- Third place in 2010 and 2011 Mohawk College Mad 4 CAD Contest - AutoCAD
- Third place in 2007 Halton Skills competition GIS division - ArcGIS

RELEVANT SKILLS & PROFILE

- Experience in developing engineering drawings with AutoCAD, Inventor, SolidWorks and SketchUp
- Knowledge of civil engineering principles and design process
- Understanding of the transportation planning policies and processes
- Experience with delivering Public Private Partnership (P3) projects
- Knowledge of Canadian Steel Design Code and Canadian Highway Bridge Code
- Experience with ArcGIS software
- Strong computer skills and proficient with MS office Excel/Word/PowerPoint/Outlook
- Knowledge of C, Java, Python, VBA and JavaScript programing languages
- Experience in engineering computations and analysis using MATLAB and Mathematica
- Integrated oral, written, and graphical communication skills
- Proven ability to work with minimal supervision as part of a multidisciplinary team

WORK EXPERIENCE

Transit Team Associate
Infrastructure Ontario - Toronto, Ontario — May 2014 – December 2014

- Worked as a Project Coordinator for the Eglinton Crosstown LRT, a P3 project
- Primarily responsible for coordinating Request for Information (RFI) response process
- Streamlined RFI processes by writing new software tools
- Updated management on project progress with regular presentations
- Managed 3rd party access of confidential project documents
- Attended and took notes in regular meetings for process and task updates

Hybrid Positioning Designer
Blackberry - Waterloo, Ontario — May 2013 – August 2013

- Undertook research of pedestrian walking patterns and locomotion mechanics
- Evaluated vendor and internal pedestrian positioning system through real world experimentation
- Automated experiments and analysis with new software
- Summarized research, experimentation and analysis in technical reports
- Validated quality control procedures
- Provided advise on department equipment acquisitions

BlackBerry Direct Customer Associate
Research in motion - Halifax, Nova Scotia — April 2012 – August 2012

- Perform technical support and customer care in a customer facing role
- Represented RIM for product specific customer inquiries and issues
- Took ownership of cases and bringing resolution to customer

EDUCATION & RELEVANT COURSE WORK

Engineering Science — Major in Infrastructure Engineering

University of Toronto - Toronto, ON — Expected Graduation 2017

Structural Design:

- Applied expertise in structural analysis and steel design in a steel bridge design project
- Designed bridge components: tension members, compression members, beams, beam-columns and simple connections
- Calculated the design load and resistance with respect to Canadian Steel Design Code
- Performed structural analysis on arches, frames and beams of bridges

Urban Operations Research:

- Performed analysis on the performance of Toronto Union Station GO ticket sales counters
- Built computer model of the ticket counter with MassMotion micro-simulation software

Transport Planning:

- Studied the Urban Transportation Modeling System
- Debated in class on proper allocation of government funding for transportation research.
- Created macro simulation to forecast travel time through Toronto waterfront, given increased automobile traffic, using INRO EMME software.

Geotechnical Engineering:

- Designed strip, pad, and pile foundations in clay and sand layers
- Analyzed the stability of shoring walls and gravity retaining walls.
- Verified the stability of different dam and foundation dewatering systems
- Analyzed consolidation of soil layers.

Structures and Materials:

- Designed a small pedestrian bridge using HSS members
- Built a box girder bridge in scale
- Optimized bridge design for maximum failure load in Wolfram Mathematica, and developed 3D model of the bridge in Autodesk Inventor
- Generated a building plan for the bridge in AutoCAD
- Estimated failure load accounting for safety factor

Economic Analysis and Decision Making:

- Developed economic evaluation for Ivey Business school case study
- Performed sales breakdown, vertical and horizontal analysis of company income statements and balance sheet on a business proposal.
- Created a recommendation report for the business decision

Praxis I (Engineering Design Process I):

- Performed an inspection on the Amsterdam pedestrian bridge
- under OSIM standards
- Created a report on the various maintenance and design issues of the bridge
- Developed a technical presentations on the suggested improvements

Praxis II (Engineering Design Process II):

- Generated Request for Proposal on Toronto Bed Bugs prevention/control/ detection
- Prepared proposal for Toronto Raccoon-Proof Green Bins
- Presented the project on Citytv and CBC Radio