

Pengcheng Ge, M. Eng, EIT

(613) 710-5666

pengchengge@outlook.com

www.pengchengge.com

OPPORTUNITY SOUGHT

Seeking a junior level opportunity to support civil engineering projects in planning, design and construction stages in a firm that provides Engineering services.

CAPABILITIES

- **Master's in Civil Engineering** and a registered Engineer in Training with Professional Engineering Ontario.
- **Work experience in municipal engineering**, including watermain and sewer design, pumping station construction, inspection, specification writing, contract administration.
- **Practical MBA (PMBA)**: Developed management skills, communication skills, conflict resolution, and facilitation.
- **A creative problem solver**. Trained at PMBA in specific 7-step problem-solving techniques.
- **An easygoing, direct, and trusting attitude**: Show respect for different opinions, convey feelings in a straightforward manner and place trust in the colleagues I work with.
- **AutoCAD and ArcGIS**: Used tools on university projects: a railway design project and stormwater runoff mapping project.

ACCOMPLISHMENTS

- Contributed to a 4-km road reconstruction project, including watermains, sanitary and storm sewers replacement, at the proposal phase. Results: (i) Provided needed ideas about how to manage sanitary flows, provide temporary water service and manage traffic during construction. (ii) Suggested construction stages.
- Researched alkaline hydrolysis, municipalities' sewer-use bylaw, etc. before providing recommendations to a local funeral home on how to properly treat and discharge alkaline hydrolysis wastewater. Wrote a memorandum indicating the impacts of this type of waste on a municipality's wastewater collection and treatment system, providing suggestions on how to enter into a discharge agreement with the municipality and funeral home, and how to pre-treat the waste before discharging. Results: reported deliver to Arnprior for consideration.
- Cooperated with different groups in the company and the City of Ottawa for a pump station reconstruction project. Duties involved design review, specifications writing, constructability analysis, writing a temporary water services memorandum, and coordinating with the client. Results: Delivered a detailed design for the pump station on time.
- Assessed conditions of four pumping stations after field investigations. Wrote reports identifying the condition of each station component and of structure, of process and of electrical system. Analyzed the condition of the overall stations. Life-cycle and expected replacement costs were also provided. Results: Report delivered to the City of Markham, ON.
- Inspected culvert construction, horizontal directional drilling, carbon fiber pipe relining and pump station construction. Communicated with contractors regarding construction progress, details, and issues. Reported construction status to senior engineers and clients. Results: (i) Completed construction according to our reports; (ii) Solved problems during construction to make sure the projects could be completed on time and budget; (iii) Clients were satisfied with construction processes and results.

WORK EXPERIENCE

Junior Engineer

Oct 2018 to Jun 2019

At Stantec, Ottawa, ON, assisted municipal engineering project delivery by participating in project planning and design, construction inspections, contract administration, and report writing.

Projects:

- **Bio-Cremation (Alkaline Hydrolysis) Sewer Use Advice**, Arnprior, ON
Provided analysis of impacts of alkaline hydrolysis waste on local wastewater collection and treatment system and recommendations on wastewater pre-treatment, discharge agreement, and treatment plant management.
- **City of Markham Pump Station Condition Assessment**, Markham, ON
Undertook field investigations of four pumping stations and collected assessments by a mobile device and compiled a photo log for storage in a database. Prepared reports identifying the condition, life-cycle, and expected replacement cost of stations.
- **Brittany Drive Pump Station Reconstruction**, Ottawa, ON
Provided functional and detailed designs for a new pump station containing three pumps. Wrote specifications, constructability report, and temporary water service memorandum.
- **Richmond Pump Station and Reservoir Construction**, Ottawa, ON
Participated in communal water system construction by creating inventory, and finalizing deficiency list. Inspected testing and construction progress.
- **Britannia Watermain Repair**, Ottawa, ON
Inspected carbon fiber pipe relining, and prepared progress payment.
- **Carlsbad Watermain Construction**, Ottawa, ON
Inspected 2-km horizontal directional drilling for watermain installation.
- **East End Culverts Replacement**, Ottawa, ON
Inspected culverts installation.

English/Chinese Translator

Jan 2018 to Oct 2018

At Upwork, Ottawa, ON, translated English to Chinese, covering science, technology, history, medicine, media, literature, and economy.

Research Assistant

May 2017 to May 2018

At EmissionTrak, Ottawa, ON, researched energy related emission data for air pollution and electricity generation studies. Wrote reports of research findings for further analysis work.

VOLUNTEER EXPERIENCE

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| Canadian Institute of Transportation Engineers (CITE) Annual Conference , CITE, Ottawa, ON | June 2019 |
| Electric Vehicle Conference , Electric Mobility Canada, Ottawa, ON | April 2018 |
| International Conference on Water, Informatics, Sustainability , Science Target, Ottawa, ON | July 2017 |
| International Student Services Office , Carleton University, Ottawa, ON. Assisted with 2 events/mo. | 2016 to 2017 |

EDUCATION/AWARD

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| Master of Engineering-Civil (GPA: 10.6) , Carleton University, Ottawa, ON | Jan 2016 to Jun 2017 |
| Bachelor of Engineering-Civil , Central South University, Hunan, China | Sept 2011 to Jun 2015 |
| Award: CU75 Policy Options and Problem Solving Competition , 2nd Place, Carleton University, Ottawa, ON | 2017 |