

Dijia Zhang

(647)-996-9770

dijia.zhang@mail.utoronto.ca

EDUCATION

Centennial College, *Diploma*

Jan.2022-Present

Software Engineering AI

University of Toronto, *Master of Engineering*

Sept.2019-Sept.2022

Emphasis in Data Analytics

University of Toronto, *Bachelor of Applied Science*

Sept. 2015-May 2019

Major in Chemical Engineering

Minor in Bio-engineering

Dean's honor list

WORK EXPERIENCE

Research Assistant, Fortification of Salt with Iron and Zinc, UofT **Toronto, ON** *May 2019 – Present*

- Developed encapsulated iron and zinc microcapsules to enhance their bioavailability in fortified salt
- Optimized the spray drying process for better scalability and economic feasibility
- Analyzed the surface morphology of produced microcapsules using scanning electron microscope (SEM)
- Performed ICP-AES analysis to measure iron; used iodometric titration to estimate iodine content
- Evaluated the release behavior of iron and zinc microcapsules in the simulated gastric environment

Research Assistant, Treatment of Mining Tailing, UofT **Toronto, ON** *May 2018 – May 2019*

- Compiled information and developed an inventory of tailing ponds at key sites within Canada and the U.S. to assess current environmental impacts and management costs.
- Developed processes, mass and energy balance, sized equipment
- Designed the mining tailing treatment plant and examined its economic viability
- Assessed overall performance in terms of metal recovery and government regulatory requirements.
- Conveyed findings and recommendations to supervisor weekly

Research Student, Rapeseed Protein Extraction, Lund University **Lund, Sweden** *May 2017 – July 2017*

- Explored the methods of isolation of protein from rapeseed press-cake, refined protocol, conducted experiments
- Investigated the effect of a variety of pH values and temperatures during the leaching, ultrafiltration and precipitation process, to find the method which optimize the final quality and yield of the protein product.
- Collaborated with team members for collection, compilation and primary analysis of data
- Presented the progress of the project to supervisors in weekly presentation and a final report

PROJECT

Team leader, Data Mining Project, UofT

Jan. 2020 – Apr. 2020

- Used analysis and visualization tools (Excel, SQL, python) to analyze data and draw accurate and reliable conclusion to provide insight to audience
- Predicted Toronto daily homeless shelter occupancy rate base on historical weather and demographic data.
- Evaluated the performance of different model/algorithms and selected the best one.

- Coordinated group tasks and due dates using Microsoft Project to ensure consistent progress and communication among team members

Team Member, Chemical Plant Design Project, UofT

Jan. 2018 – Apr. 2018

- Worked collaboratively to design a polyester resin manufacturing plant
- Coordinated group tasks and due dates using Microsoft Project to ensure consistent progress and communication among team members
- Designed control strategies to ensure safety and smooth operation strategies, conducted HAZOP analysis.
- Presented the design to client with a 3D plant tour

TECHNICAL SKILLS

- Microsoft Office Suite: Word, Excel, Outlook, Visio, Project and PowerPoint
- Python, C, MATLAB, AutoCAD, Aspen Plus, SketchUp
- Working knowledge of unit operation, chemistry lab techniques, equipment and software

ADDITIONAL WORK EXPERIENCE

Customer Service Representative, High Top

May 2017– Sept. 2018

- Managed Inventory ensured information is accurate and up to date.
- Responded to inquiries from customers
- Updated and informed clients regarding the status of their deliveries.

Teaching Assistant, New Oriental School

May 2016 – Aug. 2016

- Prepared documents such as correspondence, drafts, memos, emails, reports, and presentation.
- Tutored two class of grade 1&2 students in Math, English and helped them with their difficulties; increased students' grades by at least 10%
- Assisted teachers, organized and took care of children in class and after class.
- provided concise and clear feedback to the teachers and students after correcting homework and tests,
- Collaborated with a team to discuss the teaching strategies to build kids' interest, documented the meetings.

Team leader, Engineering Consulting Project, UofT

Jan. 2016 – Apr. 2016

- Worked collaboratively to produce deliverables on project of Redesigning Engineering & Computer Science Library
- Researched layout redesigning, space planning and the need of students, tried to eliminate flaws in the existing set-up
- Engaged in client meetings, edited design based on client's need and want
- Presented the project to clients in a final design specification and a presentation to receive feedback

ADDITIONAL QUALIFICATION

Canadian Red Cross CPR certificate c-level

VOLUNTEER AND EXTRA-CURRICULAR ACTIVITIES

Lab Assistant, Maxxam Analytics

Apr. 2015 – May 2015

- Treated various water and soil sample with basic treatment in the department of organic chemistry
- Recorded sample information into the company's database, ensure information is accurate and up to date, achieving a 99% rate of accuracy