

# Cheng Yen (Kevin) Yang

Chemical & Biological Engineering

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## CAREER PROFILE

Chemical & Biological Engineering student with a passion for renewable energy development. Experienced in lab work as well as data research, collection, and reconciliation. Aspires to combine engineering and computer science to accelerate the progress to a more sustainable future.

## TECHNICAL SKILLS

### Software & Languages

- Python
- Excel
- Aspen+
- MATLAB
- HTML, CSS, JavaScript
- GIS

### Engineering & Laboratory

- Process Design
- Reactor Design
- Process Flow Sheeting
- Feasibility Study
- Lab Procedure Design
- Sample Preparation

### Certificates & Other Skills

- BC Class 5 Driver's License
- Fluent in English & Mandarin

## TECHNICAL WORK EXPERIENCE

### FortisBC (Surrey, BC)

January, 2019 – August, 2019

#### *Engineering Co-op – Records*

- Collected pipeline data from record documents and engineering drawings within the FortisBC electronic library.
- Utilized FortisBC's GIS system to evaluate data reliability and accuracy.
- Reconciled FortisBC pipeline project specifications with the BC Oil & Gas Commission.

### ImmuneChem Pharmaceuticals Inc. (Burnaby, BC)

September, 2017 – December, 2017

#### *Lab Technician & Bioreagent Marketing Personnel*

- Performed affinity chromatography to produce purified antibodies.
- Performed ELISA tests to determine protein concentrations.
- Designed newsletters on company products to send to potential clients.
- Used Facebook Ads to increase views by 300%.

## TECHNICAL PROJECTS

### Renewable Natural Gas Process Design Project

September, 2019 – April, 2020

- Worked in a group to design a process to produce renewable natural gas.
- Designed a reactor which uses BC native fungi to break down wood waste.
- Conducted research to find scientific data to help simulate the bioreactor.
- Simulated a process plant with Excel which generates over 53,000 GJ/yr by taking in 32,000 tonnes/yr of solid waste.

### Recombinant Bacteria Induction Experiment

January, 2020 – March, 2020

- Worked in a group to study optional induction conditions for protein production.
- Designed a lab procedure based on available equipment and a limited budget.
- Performed cell transformation in a single attempt.
- Performed protein assays to determine product concentration

## TECHNICAL PROJECTS

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### Beer Brewing Experiment

September, 2019 – December, 2019

- Worked in a group to determine the effects of temperature on beer quality.
- Designed a lab procedure based on available research data on Belgian Wits.
- Designed a scoring system to evaluate the product.
- Determined equipment needed to produce on a microbrewery scale and amount needed to turn a profit if sold to vendors on campus.

### Personal Website ([kevinyang.org](http://kevinyang.org))

June, 2018 – August, 2018

- Self-learned basic HTML, CSS, and JavaScript
- Created a website which introduces myself and describes career goals.
- Added page breakpoints to make website mobile-friendly.

### Ammonia Production Aspen Project

February, 2018 – March, 2018

- Modeled a large scale ammonia production process on Aspen+.
- Performed purity and heat duty sensitivity analysis with the specification of a recycle stream.

### Vertical Farming Sustainability Case Study

May, 2017 – August, 2017

- Self-studied the topic of vertical farming.
- Determined the economic, social, and environmental viability of vertical farming as a sustainable replacement for traditional agriculture.

### Water Filtration System Project

October, 2015 – November, 2015

- Designed a water collection and filtration system using given components.
- Used Microsoft Excel to simulate the system and achieve a 92% satisfaction rate.

## OTHER WORK EXPERIENCE

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### Michael J Fox Theater (Burnaby, BC)

December, 2013 – June, 2017

#### *Usher*

- Greeted and escorted up to 600 patrons to their correct seats within 30 minutes.
- Supervised patrons to ensure safety and prevent photography.

#### *Concession*

- Sold snacks during 10-15 minute intermissions.
- Performed inventory check on hundreds of sold items at the end of the night.

## EDUCATION

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### University of British Columbia *Chemical & Biological Engineering*

September, 2015 – May, 2020

### Burnaby South Secondary School *High School Diploma*

September, 2010 – June, 2015

## ACTIVITIES AND INTERESTS

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### Working Out

- Dedication to improvement
- Self-motivation

### Dance

- Creative thinking
- Self-expression