

# Richard Chung

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## WORK EXPERIENCE

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### **TetraTech**

Dec 2023– Present

*Energy Engineer*

*Madison, WI*

- Performed energy calculations (including individual project desk reviews, tracking system reviews, and software modeling) for commercial, industrial, and residential energy efficiency programs in Texas, Idaho, Arkansas, and Colorado. Supported development and maintenance of technical reference manuals (TRMs) for each state.
- Modeled shade tree impacts and growth to verify claimed savings impact for multiple programs in Idaho Power Company (IPC). Used i-Tree Design to evaluate current year impacts and estimate impact through 40 years of the benefits of individual trees to the local environment.
- Led in-depth interviews with architects and engineers for commercial and industrial retrofit, new construction, and custom energy efficiency programs.

### **2RW Consultants**

May 2021– Dec 2023

*Mechanical Engineer*

*Fairfax, VA*

- Drafted construction design documents using Autodesk Revit and calculated mechanical cooling and heating loads using Trace700 for higher education facilities, K-12, and public entities, including:
  - Brandon Ave. Upperclass Housing, UVA: Designed Multi-Zone Variable Air Volume and Fan Coil/Dedicated Outside Air System for 140,000 square feet, 6-Floor upperclassman dormitory and dining hall.
  - Gunston Fire Station, Fairfax County: Designed Geothermal Water Source Heat Pump and Radiant Floor Heating for 15,000 square feet fire station to achieve net-zero goals.
  - TheARC, Washington School for Girls: Designed Multi-Zone Variable Air Volume systems for a 30,000 square feet, 3-Floor K-12 school. Performed energy modeling for LEED Silver submission.
- Designed Python Application to perform sizing calculations for water service mains, sanitary/storm mains, and water heaters. Applied Computer Vision techniques to determine water service load equations from ASHRAE.

### **Eaton**

Jan 2021 – May 2021

*Software Engineer*

*Rockville, MD*

- Developed and maintained client interface and database to manage status of electric meters in Java. Output visual electric meter representation in web interface and processed user data in SQL server.
- Lead Developer for Production Database to manage inventory for large stakeholders in MySQL.

### **PPL Corporation**

May 2020 – Aug 2020

*Distribution Operations Intern*

*Allentown, PA*

- Designed a Risk Management Tool to predict the likelihood and impact of device failure from 3-year equipment failure data using VBA Scripts.
- Implemented a Perceptron Neural Network into Risk Management Tool to determine the most effective weighting in risk calculation using Python.
- Diagnosed power service issues and analyzed circuits on the Worst Performing Circuits list in the Lehigh Northeast region electrical grid.

### **Quibbl**

Aug 2019 – Dec 2019

*Software Engineer*

*Remote, NY*

- Developed the interface for writers and editors to publish content onto the main website (CMS tool) using JavaScript, Node.js, and Mongo DB.

## EDUCATION

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University of Michigan

*B.S.E. in Mechanical Engineering*

*Ann Arbor, Michigan*

## CERTIFICATIONS

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Oracle Certified Associate, Java SE 8 Programmer

Jan 2019 - Present