

# RAYMOND YEH

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## TECHNICAL SKILLS

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**Proficient:** Java, Python, JavaScript, PHP, HTML/CSS

**Exposure:** Scala, MATLAB

**Software/Frameworks:** Git, IntelliJ, PyCharm, MySQL, jQuery, Tensorflow, Spark, Numpy, Pandas

## WORK EXPERIENCE

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**SASCO – Project Engineer** Sept/15 – Present

- Project engineer specializing in commercial electrical construction projects.
- Managed field operations and assisted with budgeting, scheduling, and planning for several multimillion dollar projects.

**Georgia Institute of Technology – Grader for Machine Learning Class** Jan/17 – June/17

- Responsible for grading assignments, class participation, and exams.
- Managed course content and answered student questions through Piazza.

**University of California, Berkeley – Undergraduate Researcher** Jan/15 – May/15

- Developed a smart thermostat for residential sites under time-based electricity pricing using MATLAB.
- Modeled room temperature as a Hidden Markov Model and used expectation maximization and linear regression to estimate the parameters.

## PROJECTS

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**Fitness Tracker Application** Mar/18 – Present

- Web application to track and predict progress with weight loss based on caloric intake.
- Users can edit fitness data for each day and upload/download data in csv format.
- Implemented a simple neural network in Python to analyze the data.
- Includes front-end with HTML, CSS, and Javascript and back-end with PHP and MySQL.

**Java Based Yu-Gi-Oh Game** Jan/18 – Mar/18

- Developed a turn based card game inspired by the popular trading card game Yu-Gi-Oh.
- Used Java Swing for GUI components and implemented a simple AI for the opponent.

**Lung Cancer Detection Using 3D Convolutional Neural Networks** Mar/17– Jun/17

- Analyzed 1500 high resolution CT scan images from the LUNA2016 dataset.
- Preprocessed and trained the data with 3D Convolutional Neural Networks using Tensorflow.
- Able to classify affected lungs with 78% test accuracy.

**Grocery List Application** Sept/16 – Oct/16

- Developed a grocery cart application for Android to add items to a grocery list, create/edit items, and check items off a list.
- Front-end developed in Java using Android Studio, used SQLite as the database back-end.

**Airport Fuel Containment and Management** Feb/15 – May/15

- Designed a smart storm drain system that detects fuel spills and automatically diverts contaminated water into storage tanks.
- Implemented a modified Dijkstra's algorithm in MATLAB to find optimal locations to place fuel detection sensors.
- Project received 2<sup>nd</sup> place at the 2015 National FAA Airport Design Competition.

## HONORS AND AWARDS

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**2015**    2<sup>nd</sup> place National FAA Airport Design Competition: Airport Environmental Interactions Challenge

**2015**    1<sup>st</sup> place overall for the 2015 Undergraduate Seismic Design Competition

**2014**    2<sup>nd</sup> place overall for the 2014 Undergraduate Seismic Design Competition

**2009**    Eagle Scout (Boy Scouts of America)

## EDUCATION

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**2015 – 2017**    **Georgia Institute of Technology** - M.S. Computer Science (Specialization in Machine Learning)

**2011 – 2015**    **University of California, Berkeley** - B.S. Civil Engineering