# **RAYMOND YEH**

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# **TECHNICAL SKILLS**

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

Exposure: Scala, MATLAB

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

# **WORK EXPERIENCE**

#### **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**

#### **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.

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**

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**

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

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