

# RAYMOND YEH

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## TECHNICAL SKILLS

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**Languages:** Java, Python, JavaScript, HTML/CSS, PHP, MATLAB

**Software/Frameworks:** Git, Node.js, React.js, Express.js, MySQL, Tensorflow, Spark, Numpy, Pandas

## WORK EXPERIENCE

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- SASCO – Project Engineer** Sept/15 – Jun/18
- 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 – Teaching Assistant** Jan/17 – Jun/17
- TA for machine learning class responsible for grading assignments, class participation, and exams.
  - Managed course content and answered student questions through Piazza.
- University of California, Berkeley – Research Intern, Machine Learning** Jan/15 – Aug/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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- Trip Planner Application** Jun/18 – Present
- Web application where users can search for attractions and organize information in order to plan a trip.
  - Includes RESTful APIs for Yelp, TripAdvisor, and Google Maps.
  - Front-end developed using React.js with Flux architectural pattern and backend developed with Node.js and MySQL.
- Fitness Tracker Application** Mar/18 – May/18
- 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.
  - Front-end built with HTML, CSS, and Javascript and back-end built 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.
- 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
- 2011 – 2015** University of California, Berkeley - B.S. Civil Engineering