

# Liam Nguyen

## Software Developer

Highly adaptable, result-driven problem solver seeking to build programs that will make people's lives easier.

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## EDUCATION

### Master in Computer Science

California State University Long Beach, CA

09/2019 - 12/2020

4.0 / 4.0

### Bachelor of Science, Biology/Chemistry

University of California, Irvine, CA

09/2010 - 06/2013

3.3 / 4.0

## WORK EXPERIENCE

### Assistant Manager

Bach Khoa Learning Center

01/2013 - 01/2018

Garden Grove, California

Bach Khoa Learning Center provides one-on-one tutoring in Math, Reading and Writing for students from Elementary to University level.

#### Achievements/Tasks

- Handled administrative duties for a day to day operation in the center.
- Utilized Microsoft Office Suites to manage students' and instructors' performance.
- Worked with new and current parents to understand the current obstacles and devise a plan to boost the performance.

Contact: Gina Tang - 714-209-5571

## CONFERENCES

### Autoscaling in Kubernetes (01/2020 - 05/2020)

#### Distributed System

- Analyzed how Kubernetes gather metrics and perform its auto-scaling actions when handling many computational expensive operations.
- Explored proposed improvements in scaling techniques to handle sharing of resources among containers more fairly, robust, and efficiently.
- Link: <https://github.com/liam-nguyen/Autoscaling-in-Kubernetes-Paper>

### Android OS vs Linux OS (01/2020 - 05/2020)

#### Operating System

- Researched the internal systems of each system on four aspects: kernel, file system, power management, and security.
- Presented the finding to developers who are interested in mobile development and desktop applications.
- Link: <https://github.com/liam-nguyen/CECS-526-Term-Paper>

## PROJECTS

### Bughound - A software bug management system (01/2020 - 06/2020)

- Allows developers to manage bugs for multiple applications and handle authentications for different access level.
- Developed Entity Relationship Diagram for SQL database in third normal form.
- Wrote the backend service with Django for CRUD operations and store data into SQL database.
- Technologies: Django (Python), Bootstrap, SQL, HTML.
- Link: <https://github.com/liam-nguyen/BugHound>

### Web-based Version Control (09/2019 - 12/2019)

- Supports CRUD operations for commits, branches and allows branch merging, conflicts resolutions similar to Git.
- Wrote the server and backend services in NodeJS and ExpressJS and contributes to improve the styling.
- Stack: NodeJS, ExpressJS, Pug, HTML, Bootstrap, Javascript.
- Link: <https://github.com/liam-nguyen/CECS543LMD>

### Semantic Data Generation (01/2020 - 06/2020)

- Converted seemingly unrelated datasets from health organizations (healthdata.gov) into semantic data for future complex queries.
- Worked with other developers' parsed data and wrote the program to convert parsed data into ontology graph.
- Improved performance by 10X by utilizing data structures and multi-threading.
- Technologies: Maven, Apache Jena, Apache Fuseki, Java.
- Link: <https://github.com/liam-nguyen/CECS-571>

### Pattern Recognition / Machine Learning (01/2020 - 06/2020)

- Re-engineer algorithms including K-nearest neighbors, Hidden Markov, Bayesian, Random Forest, and Neural Networks from scratch and used those to analyze new datasets.
- Created and visualized confusion matrix, heat map and other graphing techniques of inputs and outputs to understand the strength and weaknesses of each algorithm.
- Technologies: Python, Scikit-Learn, Matplotlib, Numpy, Jupiter Notebook.
- Link: <https://github.com/liam-nguyen/KNN>, <https://github.com/liam-nguyen/Hidden-Markov-Model>, <https://github.com/liam-nguyen/Naive-Bayesian-Technique>, <https://github.com/liam-nguyen/Random-Forest>

## SKILLS

Java

Spring

Javascript

NodeJS

React

Redux

Jest

Python

Django

SQL

MySQL

MongoDB

Git

C++

C#

HTML

CSS

SCSS