

# Garrett Luu

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## Education

### University of California, San Diego

BS IN COMPUTER SCIENCE, MINOR IN MATHEMATICS, 3.2 MAJOR GPA

La Jolla, CA

2018 – 2022

**Coursework:** Advanced Data Structures, Algorithm Design/Analysis, Discrete Math & Graph Theory, Software Engineering

## Experience

### Major League Hacking

Remote

OPEN SOURCE FELLOW

June 2020 – Present

- Architected **Babel** plugin import system in Babel Sandbox, an IDE to teach Babel fundamentals
- Developed features, triaged issues, and reviewed pull requests for SheetJS, a **JavaScript** library for spreadsheets
- Collaborating with 8 other fellows to develop WordJS, a **JavaScript** library for parsing Word documents
- Refactored command-line interfaces to separate modules to increase maintainability and reduce package sizes

### IntElect

La Jolla, CA

SOFTWARE ENGINEER

February 2020 – Present

- Coordinated tasks using **Agile Project Management** to develop MVP to pitch to potential investors and startup incubators
- Developed back-end REST API using **Node.js**, **Express**, and **MongoDB**
- Designed **GraphQL** API to increase efficiency of data fetching and front-end/back-end communication

### StayLinked

Irvine, CA

WEB DEVELOPMENT INTERN

August 2016

- Partnered with 2 other interns to develop web-app in 1 week using **HTML**, **CSS**, **jQuery** with **JavaScript**
- Developed a web-app for customizing toolbars for company's software, used in production for over 250 corporate clients

## Leadership

### Association for Computing Machinery (ACM Hack)

La Jolla, CA

CO-FOUNDER AND CO-PRESIDENT

Nov 2019 – Present

- Co-founded student organization, along with 10 other students, dedicated to software engineering
- Collaborating with UCSD's ECE and CSE departments to offer certificates for **Python** workshops
- Developed and presented technical workshops on **Git**, **Unix**, **React Native**, and **Firebase** for 100+ students

### IEEE Quarterly Projects

La Jolla, CA

SOFTWARE/HARDWARE DEVELOPER AND MENTOR

January 2019 – Present

- Developed heart-rate monitoring glove using **Arduino** and web application with **Node.js** to display health information
- Designed and assembled XY plotter device that draws images from svg files
- Collaborated in teams of 3-5 to design and build a project over the course of 9 weeks
- Mentored 3 teams of size 4-5 on design and development process

## Projects

### WordJS - JavaScript document parsing library

JavaScript, TypeScript

MLH FELLOWSHIP

[github.com/SheetJS/js-word](https://github.com/SheetJS/js-word)

- Collaborated with 8 other fellows to develop a **JavaScript** library for parsing Word documents
- Implemented recursive ODT file parsing algorithm using **JSDOM** to extract text content from ODT files
- Compiled test files and wrote unit tests using **Mocha** to test implemented behavior against Microsoft Word

### Babel Sandbox - IDE and educational tool for Babel

React, Semantic UI, SailsJS

MLH FELLOWSHIP

[github.com/MLH-Fellowship/babel-sandbox](https://github.com/MLH-Fellowship/babel-sandbox)

- Collaborated in a team of 8 to develop full-stack web IDE for **Babel**
- Architected **Babel** plugin import system, allowing user to generate Babel configs and apply changes directly to code
- Developed UI components to enable link sharing and forking of saved configs

### Routine.ly - Task Scheduling App

Flutter, Firebase, Calendar API

HACK AT HOME 2020

[github.com/garrettluu/routine.ly](https://github.com/garrettluu/routine.ly)

- Designed and developed mobile app to automatically schedule tasks with **Google Calendar API**
- Implemented user authentication and database features with **Firebase**

## Skills

### Languages

Java, C, C++, HTML, CSS, JavaScript, TypeScript, Kotlin, Dart, Python, ARM Assembly

### Back-end

Node.js, Express, GraphQL, MongoDB, Firebase

### Front-end

React, React Native, Next.js, Flutter, Electron, jQuery

### Tools/Tech

Git, Unix, GDB, Mocha, JUnit