# Ian SooHoo



github.com/capturetheworld

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# **EDUCATION**

# San Jose State University, CA

**MAY 2021** 

Bachelor of Science in Computer Science (BSCS)

GPA: 3.50

**Relevant coursework**: Blockchain (**JavaScript** and **Go**), TensorFlow (on Anaconda), Advanced Python, Scala Functional Programming, Java Data Structures & Algorithms, Formal Languages, Cybersecurity, Compiler Design

#### HIGHLIGHTED EXPERIENCE

# CK-12 // Interactives Software Development Intern

**SUMMER 2019** 

- Created 6 interactive math web apps for 4 open-source online textbooks in JavaScript and GeoGebra Script.
- Analyzed feedback and recommended user experience changes for pre-existing web apps and site to CEO, with 92% acceptance.
- Researched and developed UX improvements for existing web apps to convey difficult math concepts to students

# **Upin** // UX Engineer Intern

**SUMMER 2018** 

- Applied SCRUM process for 2-week sprints at a startup company developing a social media app.
- Created wireframes, user flows, logos, and over 20 UI concepts in Sketch App and Illustrator.
- Organized assets and sprints through Trello and Zeplin.

# **SKILLS**

Languages: Python • Java • JavaScript • GoLang (familiar) • Scala (familiar) • HTML/CSS/EJS

Modules/Platforms: Flask • DataFrames • NumPY • Matplotlib • BeautifulSoup • NodeJS • MongoDB • React • Angular (learning) • Git • AWS EC2 (Linux)

# HIGHLIGHTED PROJECTS

# Pasttime – Post-COVID Activity Finder

2021

- Lead a team of three and utilized **NodeJS** to build a webapp that pulls recreational activity information from **MongoDB**.
- Secured user information with NPM Crypto library and created a virtual currency.
- Utilized EJS templating, Bootstrap and CSS Grid to build a responsive front end

# Opcode Machine Learning for HMM-based Metamorphic Virus Detection

2020

- Developed opcode file processor in **Python 3** that analyzes **thousands of files in seconds** and generates a Hidden Markov Model (neural network) compatible output file.
- **Designed an algorithm** to tally the 30 most frequent opcodes in the folder family and truncate the remaining pool.
- Utilized Python library NumPY, Python dictionaries, and string manipulation to produce a clean output.

# **Responsive Diagram Webapp**

2015-Present

- Designed and created, with a team of 4, a web app that aids students in creating UML class diagrams.
- Utilized JavaScript, HTML Canvas, and CSS to create a responsive web design.
- Received positive feedback for its functionality and design. Utilized by students in Computer Science classes.