Sydney Lim
MSCS @ UCSB

Last update: September 19, 2023

Up-to-date version of CV is available at
https://sydneylim.github.io/cv

Location	Fremont, CA
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Recent graduate of UC Santa Barbara with an MS in Computer Science and BS in Computer Engineering. Aiming to leverage a proven knowledge of agile development and project design for a software engineering position.

Skill	Level	Skill	Level	Skill	Level	Skill	Level	Skill	Level	Skill	Level
C	●●●●	C++	●●●●	Python	●●●●	Java	●●●●	JavaScript	●●●●	Ruby on Rails	●●●●
Verilog	●●●○	React	●●●○	Express	●●●○	Heroku	●●●○	MongoDB	●●●○	MySQL/PostgreSQL	●●●○
R	●●●○	AWS	●●●●	Autodesk Fusion 360	●●●○	Load Testing	●●●●	Git	●●●●	Agile	●●●●
MATLAB	●●●●										

Professional Experience

Jun 2022 - Sep 2022
Invoca, Santa Barbara, CA

Software Engineering Intern

- Worked with a small team on full-stack software development using Ruby on Rails and React.js.
- Practiced agile software development skills through pair programming, standups, retrospectives, and backlog refinement.

`Ruby on Rails` `Full Stack Development` `Agile Software Development` `React.js` `RubyMine`

Aug 2021 - Sep 2021
Jones Lang LaSalle, San Francisco, CA

Data Loss Prevention (DLP) Intern

- Worked on a data loss prevention project to pinpoint sources of and minimize internal threats.
- Implemented robotic process automation (RPA) script to automate data extraction in Python.
- Utilized Microsoft Power BI, Tableau, and SQL to compile, cleanse, analyze, and present the data.

`Python` `Microsoft Power BI` `Tableau` `SQL` `Robotic Process Automation (RPA)`

Jun 2019 - Sep 2019
Bertram Labs, Foster City, CA

Data Science Intern

- Designed a database in MySQL/PostgreSQL. Utilized Microsoft Power BI to cleanse a user database.
- Designed and presented a prototype UI for the database in a pre-production environment.
- Researched natural language processing and data warehouses (Amazon AWS, Microsoft Azure, Google BigQuery).

`MySQL` `PostgreSQL` `Microsoft Power BI` `Prototyping` `Product Design`

Projects

May 2023 - Sep 2023

Meta Quest Pro Eye Tracking Test Suite (EyeTTS), [GitHub Repo](#)

Master of Science Research Project

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As new commercial augmented reality (AR) and virtual reality (VR) headsets have been developed and released, eye tra
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`Unity` `Oculus` `AR/VR` `Autodesk Fusion 360` `Design` `GitHub`

Oct 2022 - Dec 2022

OffTheRails Online Store, [GitHub Repo](#)

Project for CMSPC 291A: Scalable Internet Services

- Worked in a team of six to develop a Ruby on Rails online store web application deployed on AWS Elastic Beanstalk.
- Analyzed the application's scalability by identifying bottlenecks and applying various optimizations.
- Conducted cost analysis to find the optimal EB instance configuration through Tsung load testing.
- Maintained a well-documented code base with version control, and touched base with mentors weekly and with team members daily.

`Ruby` `Rails` `Tsung` `Load Testing` `AWS Elastic Beanstalk` `GitHub` `Agile Development`

Sep 2022 - Dec 2022

ChromesthesiAR, [GitHub Repo](#)

Project for CMSPC 291A: Future User Interfaces

- Worked in a team of three to develop a Unity AR application for iOS.
- Developed an AR drawing application to explore chromesthesia. The application allowed the user to draw either in 3D space or on a 2D surface. The device analyzed sounds in the user's surroundings and modified the brush color accordingly.
- Conducted a user study to investigate associations between color and sound.

`Unity` `Augmented Reality` `iOS Development` `Human Computer Interfaces` `User Study` `GitHub`

Sep 2021 - Mar 2022

T.A.L.K., [GitHub Repo](#)

Senior CS Capstone Project, sponsored by Invoca

- Worked in a team of six to develop an Express web application deployed on Heroku to be used by salespeople.
- Designed a multi-cloud solution that displays critical call information in a single view.
- Utilized transcriptions generated by IBM Watson in near real-time that retain important call details.
- Leveraged NLP Cloud to generate concise call summaries so that salespeople can easily remember call contents.
- Determined keywords and the customer's sentiment using Google Cloud's NLP API to guide sales follow-ups.
- Integrated Invoca's APIs service to retrieve call transcripts and store the data in a MongoDB database.
- Maintained well-documented code bases with version control, and touched base with mentors weekly and with team members daily.

`Express` `JavaScript` `Heroku` `CSS` `MongoDB` `GitHub` `Agile Development`

Mar 2021 - Jun 2021

UCSB Courses Search, [Application](#)

Project for CMPSC 156: Advanced Applications Programming

- Worked with a team of ~20 people on this legacy project, a web application used to search for classes based on input criteria.
- Collaborated with a subteam of 5 people to focus on improving the search user interface.

React | Heroku | Spring Boot | Auth0 | GitHub | Agile Development

Feb 2021 - Mar 2021

Vision Test, Project Page

Project for ECE 153B: Sensor and Peripheral Interface Design

- Designed a "vision test" that simulates a tumbling E chart with symbols gradually decreasing in size.
- Displayed the E's on an 8x8 LED Matrix.
- Connected a Wii Nunchuk to allow a user to input the direction that the E is facing.
- Utilized a distance sensor to verify that the user is standing at an appropriate distance from the display.
- Utilized a terminal to display the user's vision score.
- Allowed for communication between both the 8x8 LED Matrix and the Wii Nunchuk with an STM32 microcontroller using I2C.
- Allowed for communication between the terminal and an STM32 microcontroller using SPI.

C | STM32 Microcontroller | I2C | SPI | Peripherals | Product Design

Jan 2021 - Feb 2021

COVID-19 Survival Naive Bayes Classifier, GitHub Repo

Project for CMPSC 165A: Artificial Intelligence

- Designed a Naive Bayes Classifier in Python that determines whether a patient will survive from COVID-19 given their preconditions.
- Preprocessed and cleansed training and validation data sets using NumPy and SciPy.
- Constructed a model to determine which data fields were of greater importance.
- Placed second on the class leader board for classification accuracy and runtime.

Artificial Intelligence | Machine Learning | Python | NumPy | SciPy | Data Processing | Modeling

Education

Expected Jun 2023

University of California, Santa Barbara, Santa Barbara, CA

Master of Science in Computer Science

- GPA: 3.9/4.0
- Programs: 5-year B.S./M.S. Program in Computer Science
- Coursework in: Scalable Internet Services, Augmented Reality, Computer Graphics, Operating Systems, Runtime Systems, Program Analysis, Computer Vision, Adversarial Machine Learning
- Extracurricular Activities: Four Eyes Lab (Research in eye tracking in mixed reality), UCSB Badminton Club

Sep 2018 - Mar 2022

University of California, Santa Barbara, Santa Barbara, CA

Bachelor of Science in Computer Engineering

- GPA: 3.7/4.0
- Programs: College of Engineering Honors Program, 5-year B.S./M.S Program in Computer Science

- Coursework in: Data Structures and Algorithms, Artificial Intelligence, Machine Learning, Computer Vision, Digital Image Processing, Operating Systems, Network Computing, Advanced Applications Programming, Object-Oriented Design, Sensor and Peripheral Interface Design
- Extracurricular Activities: Co-Founder and Vice President of UCSB Badminton Club (4 years)

Aug 2014 - Jun 2018

American High School, Fremont, CA

High School Diploma

- UC Weighted GPA: 4.50 (Uncapped), 4.14 (Capped)
- SAT I: 1560/1600
- SAT II Chemistry: 800/800
- SAT II Math L2: 800/800
- Relevant AP classes: AP Chemistry, AP Physics C, AP Biology, AP Calculus BC, AP Computer Science (in Java), and AP English Language and Composition