Sam Der

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EDUCATION

University of California, Irvine – GPA: 3.9   **October 2020-June 2024**
B.S. in Computer Science and Engineering
- Regents', Deans', and Honors Scholar

SKILLS

- **Languages**: HTML, CSS, JavaScript, Python, PHP, MySQL, PHP, Flutter and Dart, C++, Java
- **Frameworks/Libraries**: React, Flask, MongoDB, Express, Material-UI, Bootstrap, Pandas
- **Software**: Visual Studio Code, Unix, Git, GitHub, Microsoft Access, Microsoft Office, Google Drive
- **Spoken Languages**: English, Cantonese

EXPERIENCE

Cooper Group | Undergraduate Researcher   **May 2021-Present**
- Plotted complex graphs of various objects' positions in the sky using Matplotlib and determined whether they were members of different clusters
- Utilized the sqlite3 Python library to store millions of rows of data on dark matter halos in a local database and to discover overlapping halos

UCI Student Life and Leadership IT Department | Web Developer   **January 2021-Present**
- Develop robust PHP backends that fetch UCI data from MySQL databases and UCI APIs
- Dramatically improved the accessibility and look of multiple UCI websites with Bootstrap and removed dozens of bugs within them
- Assembled an endpoint browser that pulls data from more than 5 UCI API endpoints so staff can easily view samples of the data contained within them
- Organize files in various folders on multiple servers, allowing staff to navigate through repositories more easily

Artiman Ventures | Data Analyst   **December 2020-June 2021**
- Devised complex SQL queries in Access to clean and update multiple tables in a database containing hundreds of rows of critical limited partner financial data
- Communicated with a representative from Artiman to discuss progress and clarify any important instructions regarding organization or malformed data

PROJECTS

MetaBow & MetaFit   **June 2021 - Present**
- Spearheading the creation of an app with Flutter and Dart that will provide health recommendations and track a user's vitals as they exercise with the MetaBow, a revolutionary appliance that will enhance workouts
- Taking advantage of various Firebase tools like Firebase Auth and Cloud Firestore to assist with account generation and data storage respectively

ZotConnect   **October 2020**
- Coordinated a group with 3 other students to build a complex full stack application in which UCI students can meet each other by sharing contact information and classes
- Contributed to building backend and frontend using MongoDB, Express, React, Node.js, and Material-UI
  Set up network requests from frontend using Axios and encrypted passwords with Bcrypt when users register, adding to the security of the web application

Earthquake Data Searcher and Sorter   **June 2020-August 2020**
- Programmed 8 search filters that parse XML data on more than 2000 earthquakes from the USGS based on different criteria such as magnitude, depth, and closest quakes from a location
- Utilized Duke University's Java library as well as the standard Java library to implement and combine many of the search filters using interfaces
- Implemented selection sort algorithm to sort filtered earthquake data

HONORS & AWARDS

- **ENGI Tank (2021):** 1st Place Winner in this business pitch competition with MetaBow and the MetaFit
- **UCI ICS Student Council WebJam 2020:** 3rd Place Winner with ZotConnect
- **IBM Master the Mainframe 2019 Learning System (Achieved in 2020):** Level 3 Participant