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| **Fajar Dirham** | | | | Fbdpages.com | Image result for house icon" |
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| **Education**  University of California San Diego  *Bachelor of Science, Computer Engineering* | Expected graduation: June 2022  GPA: 3.915 | Major GPA: 4.0 |

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| **Skills**  Java, C++, C, C#, React,  React Native, Arduino, Python, Blender  Vim, GDB, Valgrind,  Bash, Git  **Activities**   * Tau Beta Pi Honor Society house leader * IEEE Quarterly Projects Mentor * CSES social staff * Speech and Debate * AIAA Distinguished Lecturer Committee * Eta Kappa Nu Honor Society   **Course Work**   * Data Structures & Object-Oriented Design * Computer Org. & Systems Programming * Circuits and Systems * Analog Design * Software Tools & Techniques * Linear Algebra * Differential Equations * Discrete Mathematics * Calculus & Analytical Geometry for Science and Engineering * Mathematics for Algorithm and Systems   **Foreign Languages**  Indonesian (Native tongue)  German (4 classes in UCSD)  Spanish (Highschool elective) | **Work Experience**  **Software Engineer & Designer** *Summer EnVision Experience*  July – September 2019   * Created a virtual reality exhibit for Birch Aquarium in 10 weeks * Final deliverable: robust kid friendly fish masks that played 360-video * Workshops: wood working, **Arduino**, and **Auto CAD (SolidWorks)** * Product design phases: Systems Requirement Review, Preliminary Design Review, Critical Design Review * User testing and experience, **software development**   + **Unity** and **C#** to make a 360-video player app     - App created using **OpenVR** SDK     - Responds to user input     - Plays videos stored in disk   + Plug and play system for the Acer Windows Mixed Reality headset and a windows computer through **Batch scripting**   **Project Experience**  **SayWatt** *Second Place Winner IEEE Quarterly Projects* |June 2019   * **IoT** multi-platform **mobile app** that controls light switches through Wi-Fi * “Flipper” device, using an ESP-8266 Wi-Fi microcontroller, interacts with the light switches and communicates with the app * Eco-friendly: Product designed to reduce household electrical consumption * Coded purely in **React Native** and uses **Expo** as a deployment platform * ESP uses **Arduino** to connect to Wi-Fi and control the “flipper”   **Steady Hands** *Start-R funded project team* | Jan 2019 - Present   * Developing gloves to alleviate elderly hand tremors * Computer engineer   + Prototyping a glove that tracks hand tremors.   + **Embedded Systems**   + Uses **potentiometers**, **flex sensors**, and **accelerometers**   + In charge of **circuit design**   + **Arduino** work and assisted with **Auto CAD (SolidWorks)** models   + **Python** to process serial input and animate hand movements in **Blender**   **Stakks** *SD Hacks 2019 project* | October 2019   * Web app for a study group finder and assistance app * Used Firebase for back end * Front end using **React** and **CSS**   **Disk based Binary Tree** *Data structures class project*   * Used **C++** to implement a **Binary Search Tree**   + Relied on the **templates** feature of **C++** * Uses disk for storage, debugged using octal dumps |