

Dwight Diesmo

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EDUCATION

- **San Diego State University** San Diego, CA
B.S. Computer Engineering 2018 - 2022
Courses: Embedded Systems Programming, Embedded Operating Systems, Microprocessors, VLSI System & Circuit Design, Computer & Data Networks, Multimedia Communications, Web Application Development
- **MIT xPRO** Cambridge, MA
Professional Certificate in Coding: Full Stack Development with MERN 2022 - 2023

SKILLS SUMMARY

- **Languages:** Python, C/C++, SQL, HTML, CSS, JavaScript, Verilog/SystemVerilog
- **Frameworks:** ReactJS, Fast API, Express, Node, Bootstrap 5
- **Tools:** GIT, GitHub, Vivado, MySQL, PostgreSQL Matlab
- **Core Values:** Initiative, Transparency, Goal-oriented

EXPERIENCE

- **Sandvik** Camarillo, CA
Software Engineer 2022
 - **Embedded Systems:** Implemented temperature mapping and balancing algorithms to monitor and control voltage, temperature, and current levels.
 - **Control Systems:** Automated the software development of adding, deleting, and editing parameters on the vehicle's screens.
 - **Production Test Systems:** Developed production test devices that simulated specified vehicle use-case conditions to ensure subsystems meet specifications & requirements.
- **ModVans** Oxnard, CA
Software Engineer 2022
 - **Embedded Systems:** Architected embedded software to control all vehicle subsystems which interacted with physical switches and a web/mobile application.
 - **Web Apps:** Updated existing web/mobile applications to include Bluetooth, WiFi, and over-the-air update capabilities.
 - **Production Test Devices:** Supported the production team by developing test equipment that checked all electronic devices before use in production and afterward during QA tests.
- **National Security Innovation Network** San Diego, CA
Embedded Systems Engineer 2021-2022
 - **Embedded Systems:** Engineered M-203 deploy-able surveillance round prototypes partnered with the Department of Defense.
 - **Digital Signal Processing:** Implemented digital signal processing for sub-modules such as the PIR Motion Sensor, 320x320 Camera, ADC Microphone, 3-Axis, Accelerometer, and GPS.
 - **API Development:** Created a Flask Application to process raw data collected from the device into the customer's desired formats.
 - **Front-End Development:** Developed a website to display the processed data allowing the user to select & export specific recordings.

PROJECTS

- **Autonomous Adaptive Solar Ecosystem:** (Awarded Best Overall in SD Hacks 2022) For the 2.5 billion+ people who don't have access to electricity or clean water, our team designed an adaptive solar panel and drives a water pump for irrigation, sanitation, and drinking. (2022)
- **Movie Database Dynamic Web Application:** As a clone of rotten tomatoes, our team used Flask and SQL to create a user-driven web application that enabled users to add movies to the database and write reviews to existing movies. We also implemented a recommendation system that analyzed the user's reviews, grabbed the corresponding genre and listed movies with the same genre minus movies already reviewed by the user. (2022)

PUBLICATIONS

- **The Camarillo Acorn: Rancho Campana's inaugural graduating class is looking toward future:**
<https://www.thecamarilloacorn.com/articles/rancho-campanas-inaugural-graduating-class-is-looking-toward-future/> (2018)

HONORS AND AWARDS

- Best Overall Project - SD Hacks 2022 (UCSD)
- Dean's List - SDSU College of Engineering
- Distinguished Organization Vice President - SDSU Residence Hall Association