Jhensen Ray Agni

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Education

University of California, Riverside | 2015 - 2019
*Bachelor of Science in **Mechanical Engineering** with a concentration in **Design and Manufacturing***
University of California, Riverside Extension | in-progress
Full Stack Software Developer Bootcamp
Security Clearance: **Active DOD - Secret**

Relevant Courses

- Introduction to Robotics
- Machine Design
- Mechanical Modeling and Analysis
- Introduction to Mechatronics
- Linear Systems and Controls
- Feedback Control

Skills

Matlab, Python, JavaScript(ES6), SolidWorks, HTML, CSS, Bootstrap, Node.js, Express.js, SQL, MySQL, Numpy, C/C++, jQuery, Arduino/Raspberry Pi Programming, Linux Ubuntu, Git, Robotic Operating System(ROS), Soldering, Tooling/Machining, Geometric Dimensioning & Tolerancing(GDT)

Work Experience

Naval Surface Warfare Center, Corona Division
Systems Engineer | *2019 – Present*

- Apply advanced techniques of RM&A theory to material readiness assessment for any military or commercial system
- Combine and integrate all failure data to analyze and assess a single system, multi system, or system of systems readiness
- Develop and document a single system or system of systems reliability models and criteria for scoring system failure events
- Use readiness assessment tools and multiple databases to determine system RM&A metrics and apply continuous process improvement (CPI) techniques

Eotron LLC.
Product Development Intern | *2018 – 2019*

- Rapidly created parts and assemblies in SolidWorks for use in production that can be printed using 3D printers.
- Identify patterns and relay findings back to the research and development (R&D) organization to streamline the engineering design process
- Successfully designed and programmed a UVC LED Sanitation Robot prototype that will be implemented in the medical, food service, and private industries.

Projects

Window Cleaning Robot Senior Design Project

- As programming and electronics lead, collaborated with colleagues to successfully design and fabricate an autonomous window cleaning robot which implement servo motors, stepper motors, and an arduino microcontroller for actuation and control.

Crazyflie Micro UAV

- Implemented control techniques with Forward Kinematics, Perception, Positioning, and Motion Planning to develop obstacle avoidance algorithms and Occupancy Grid Mapping for Crazyflie 2.0 UAV

TurtleBot Soccer Project

- Developed and tested Motion Planning and Trajectory Control algorithms in Python to push a ball into a goal-post, which resulted in the team winning first place out of 15 teams in path accuracy and speed.
- Utilized RViz and ROS to virtually simulate the motion of the Turtlebot running on Linux Ubuntu OS prior to physical application

Leadership Experience

Marine Corps Officer Candidate (ROTC)

- Acting as fireteam leader, successfully led a group of Marine Corps Officer candidates through a series of land navigation and obstacle course drills during OCS Prep Weekend.