Jack Kolb

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B.S. Honors Mechanical Engineering, UC Riverside   2016 – 2020
Focus on Robotics and Controls, 3.85 GPA

Certified Solidworks Associate, Mechanical Design

Work Experience

UCR Autonomous Underwater Vehicle
Large autonomous submarine competing annually in the international RoboSub competition

Mechanical Team   2016 – 2017
Designed and constructed the submarine's physical structure; created a modular electronics housing and a watertight but accessible central electronics chassis

Mechanical Lead   2017 – 2018
Led a team of 10+ engineers in developing torpedo systems, extending upon the central hull, developing various electrical housings and aesthetic components, presenting at outreach events, managing the project website and social media profiles; ensured no leaks for 50+ water runs

Project Lead   2018 – 2019
Currently managing the project, working with university department and student organizations for budgeting and support, communicating with corporate sponsors, ensuring deadlines and documentation are fulfilled and standardized, managing the overall project progression to achieve production goals

UCR Residential Life

Resident Advisor   2018 – 2019
Currently managing a residential building of 70+ first-years, planning and conducting student-centric programs, supporting students' mental health and academic performance, fulfilling general duties for the residential communities

Project Experience

Littlebox   C++, Boost   /littlebox
File transfer server/client allowing users to push, pull, and delete files from a central server, includes both server and file passwords, protection from accessing outside the server directory, remote access to servers, and a simple command line interface

TinyRSA   C++, GMP   /tinyrsa
Easy-to-use, well-documented C++ header for RSA encryption/decryption and key generation

WiCon   Python, GTK3   /wicon
A simple, straightforward GUI WiFi manager for Linux distros, interfaces with wpa_supplicant and other built-in programs, allows connection to open/WPA2/WPA2-Enterprise networks, autoconnection to networks by strongest signal, and reconnection to saved networks

Quadmotion   [HackIOT 2018]   Python, Raspberry Pi, Arduino   /quadmotion
Uses arrow keys or hand gestures to control a quadcopter from anywhere in the world, runs a webserver on a Raspberry Pi to redirect server input into Arduino commands to control a disassembled quadcopter RC controller

ElectionCat   [Hacktech 2018]   Python, Flask   /electioncat
Web application for managing student organization elections, runs on a local/remote server, uses JSON files for data and is focused on easy configuration for the end-user

[see more projects at jackkolb.com]

Co-Curricular Involvement

American Society of Mechanical Engineers   2016 – present
Member of UCR's ASME chapter, project liason for RoboSub, involved in general meetings and events, project lead meetings, hosted a quarter-long weekly workshop preparing first-year mechanical engineers for success in their "weed-out" course

Institute of Electrical and Electronics Engineers   2016 – present
Officer of UCR's IEEE chapter, project coordinator for RoboSub, attended general meetings, events, and officer meetings, showcased IEEE at outreach events, conducted administrative duties for the organization

Association of Computing Machinery   2017 – present
Member of UCR's ACM chapter, involved in general meetings, events, and workshops

Cross Campus Entrepreneurs   2016 – present
Member of UCR's CCE chapter, involved in general meetings, events, and workshops

National Residence Hall Honorary   2016 – present
Member of UCR's NRHH chapter, involved in general meetings and community service events

Tau Beta Pi   2017 – present