Jack Kolb

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B.S. Honors Mechanical Engineering, UC Riverside - 2016 - 2020
Emphasis in Robotics
3.93 GPA (Major); 3.86 GPA (Cumulative)

Certified Solidworks Associate, Mechanical Design - 2017

UCR Robosub, Mechanical Lead - 2017 - 2018
Managed an autonomous robotic submarine project's mechanical team. Set deadlines, organized a 10-person team, worked with other leads, managed university funds; extensive use of Solidworks and group design practices.

Languages and Skills:

Python	(Moderate-High)	My primary language
C++	(Moderate)	Learned in university, my secondary language
Git	(Moderate)	Casual use in solo projects and hackathons
Heroku/Azure	(Moderate)	Deployed several web applications on these platforms
MatLab	(Moderate)	Learned in university
Solidworks	(Moderate-High)	Heavily used in Robosub, coursework, and other applications
OpenCV	(Beginner-Moderate)	Used in several projects
Flask	(Moderate)	Used in several projects

Notable Solo Projects:

"WiCon" -- KISS WiFi Manager - Python, GTK3
A simple GUI WiFi manager for Linux; able to use a number of standard command-line interfaces

Algorithmic Stock/Cryptocurrency Trader - Python, Interactive Brokers
Self-managing, profitable daytrader; currently in forward testing

"Mademoiselle Le'Bot" -- LINE Chatbot - Python, LINE, Google Drive APIs, Heroku
A LINE chatbot with databases, user recognition, timers, and many other features

"GoodMorning" -- Intradaily Information Display - Python, Tkinter, Web-Based APIs
An adorable full-screen display of the weather, time, date, and stock/cryptocurrency information; actively changes on the time/weather

"Littlebox" -- RSA encrypted file server - C++, Boost
A lightweight remote-accessed file server, made from scratch, designed for security

"TranSec" -- End-to-End-Encrypted File Transfer - C++, Windows C++ Libraries
A low-level, secure, file transfer program, designed to foil prying eyes at all points between the network cards

"FoodText" -- Dining Information via SMS - Python, Google Drive APIs, Raspberry Pi
Scrapes UCR's dining information websites to deliver the day's menus via text message

Hackathon Projects

Citrus Hack (Fall 2016): - Python, Wit.ai, Raspberry Pi
A voice-controlled circuit board: users can turn on/off switches through voice commands (team of 4)

Cutie Hack (Spring 2017) - Python, OpenCV, Raspberry Pi
A robot that tracks cups from the observer position in the classic "Three Cup Shuffle" game, consistently outperformed humans! (team of 4)

Enginuity Hackathon (Spring 2017) - C++, Windows C++ Libraries
Created TranSec, described in "Solo Projects"
Awarded First Place! (team of 1)

Cutie Hack (Fall 2017) - HTML, JavaScript, Web APIs
A webapp that scrapes a local grocery store website to create recipes using discounted items. (team of 3)

HackTech (Winter 2018) - Python, Flask, Azure
A fully functional, highly configurable, easy-to-deploy election system for university organizations (team of 2)

HackIOT (Spring 2018) - Python, Raspberry Pi, Arduino
Made a quadcopter controllable via hand gestures from anywhere in the world (team of 4)

UCR Student Organization Affiliations

UCR Robosub - 2016 - 2018 :: Mechanical Team

American Society of Mechanical Engineers - 2016 - 2018 :: Member

Institute of Electrical and Electronic Engineers - 2016 - 2018 :: Member

Association of Computing Machinery - 2017 - 2018 :: Member

Cross-Campus Entrepreneurs - 2016 - 2018 :: Member
Presentations and advice for starting up a company

National Residence Hall Honorary - 2016 - 2018 :: Member
Community service and campus involvement

Tau Beta Pi