KEVIN WILCZYNSKI

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PROFESSIONAL SUMMARY

I'm a software engineer with years of experience producing high quality code and algorithms. My greatest achievements have been sending a Cube Satellite into space as well as being a member of ARCS self-driving robots laboratory. I have an extensive background in machine vision and robotics. When I'm not programming or creating, I enjoy meeting new people. I have been told that I am not shy and can be quite the extrovert. I often embrace awkward situations, and work well on a team as well as independently. My greatest strength as an engineer is my ability to work on a problem until it is solved. I take pride in all the work I produce, no matter the size of the project, no task is too small. My ultimate goal as an engineer is to build something that matters to the world and will impact the lives of people in a meaningful way.

SKILLS

- <u>Programming Languages:</u> Python, C/C++, Java, Javascript, MySQL, HTML
- <u>Software Technologies:</u> OpenCV, PyTorch ,GIT, AWS, Linode, FireBase,Robot Operating Skills (ROS)

- <u>Embedded systems:</u> AVR Chips, PIC, ATMega series, Arduino Platform, Raspberry Pi Platform
- <u>IDE Tools:</u> Visual Studio, Xcode, Netbeans, Bash/Zsh ,ATOM

- <u>Frameworks:</u> React/React Native, Flask ,Django ,Svelte
- <u>Operating Systems</u>: MacOS, Linux(Ubuntu), Window

TECHNOLOGY SUMMARY

- Image processing and computer vision (OpenCV)
- Several Python packages (Flask, NumPy, OpenCV)
- Data collection and cleaning
- Write Unit Tests

- Able to write detailed code documentation
- Various types of machine learning techniques
- Rapid prototyping with off shelf components

- Embedded systems
- Microcontrollers
- PCB design
- Reverse engineering components with no docs

EXPERIENCE

Lead Programmer
ARCS Lab in association with NASA | Northridge, CA

August 2018 - August 2021

- Head programmer for the Autonomy Research Center for STEAHM (ARCS).
- Worked with Husky UGV Outdoor Field Research Robot from Clearpath Robotics and developed mapping techniques for navigation systems using LIDAR and Intel RealSense.
- Built and coded applications and modules using C/C++,Python, JAVA and Bash .
- Made 3d environments using ROS(Robotic Operating System) to simulate tests before deploying to the robot.
- Merged data from Lidar sensor and Intel RealSense into one point cloud dataset.
- Wrote detailed reports so future teams could continue the work.

Software Engineer
Neutron Shipping | Santa Clarita, CA

April 2017 - March 2019

- Lead Programmer for image processing using OpenCV and Intel RealSense
- Developed, coordinated, and conducted complex tests and debugged systems.
- Built and tested automation tools for infrastructure provisioning.
- Worked with UX designers to design and build user interfaces and iterate based on user feedback.
- Executed functional and integration testing and software delivery support.
- Identified system and software issues, evaluated troubleshooting options and developed solutions.

Lead Programmer
Rock-SATX | Santa Clarita, CA

July 2015 - September 2018

- Programmed communications system to upload with the iridium satellite network to offload that data before impact.
- Programmed probes mission critical systems, which included integration with NASA's sounding rocket data lines, activation of probes deployment motors as well as activation of servo locks to deploy autorotation fins.
- Performed or directed revision, repair, or expansion of existing programs to increase operating efficiency or adapt to new requirements.
- Achieved desired results with error-free programs by rechecking execution and fully resolving issues.

Student Researcher
College of the Canyons | Santa Clarita , CA

May 2015 - July 2018

- Programmed for High Altitude Student Payload (HASP).
- Worked on flight systems which included activation of onboarding heating elements to keep components at optimal temperature.
- Worked on post-flight data modeling and cleaning
- Assisted with set up and preparation for research experiments and studies.
- Troubleshooting and configured scientific equipment required for gathering data.
- Prepared special instruments and monitoring devices used to record test results.

Software Engineer
GeoFriends | Santa Clarita, CA

January 2015 - February 2016

- Defined and continuously improved software development best practices.
- Implemented intuitive, easy-to-navigate and aesthetically pleasing user interfaces in a single page application.
- Developed Geo based User interface and worked with managing user profiles.

EDUCATION

California State University, Northridge (CSUN)
Bachelor of computer science

August 2018 - December 2022