THOMAS YATH

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EDUCATION

San Jose State University December 2025
Master of Science in Mechanical Engineering

California Polytechnic State University June 2017
Bachelor of Science in Mechanical Engineering

SKILLS

- **Mechatronics Design Tools:** SolidWorks, MATLAB, Simulink, ANSYS
- **Languages, Middleware, Simulation:** Python, C++, ROS, Gazebo, RViz
- **Manufacturing:** 3D Printing, Soldering, Machine Shop Familiarity

EXPERIENCES

Robility
Mechatronics Engineer *November 2025 – Present*

- Designed structure of a motorized rollator walker, including 3D printed user arm handles developed in SOLIDWORKS. Parts were manufactured with powered tools and assembled with hand tools
- Created control software for force-based user control system, using C++ on a Teensy microcontroller to determine user intent from forces to control motor speed to power walker base motion
- Developed testing software to test performance of load cell sensors for use validation
- Implemented novel user fall detection through input force monitoring with accompanying base motion countermotion
- Sourced components for different versions based on varying budget constraints
- Built prototype version of the motorized rollator walker for demonstration
- Wrote technical documentation to assist three patent applications

Future Motion Inc

QA/QC Manager *November 2022 – January 2024*

- Managed and trained team of quality assurance technicians through final testing and rework of the 500-600 units of Onewheel electric skateboards daily
- Performed first pass inspection on new materials and parts on the launch of new flagship model the Onewheel GTS and new board accessories for functionality and cosmetics
- Reported failure trends from daily production runs, assisting in root cause analysis of three trending new failures related to part failure and process issues
- Interfaced with Electrical Engineers and Software Engineers in designing, implementing and troubleshooting production test fixtures for components and modules for the GTS model
- Created SOP documentation on product assembly, part and module testing for three Onewheel models

RMA Department Manager *February 2019 – November 2022*

- Managed team of repair technicians on the evaluation, repair, and testing of customer products sent in for servicing, repair both in and out of warranty, increasing efficiency of team to the daily number of issue evaluation and repair to 50 boards per day
- Performed evaluation and repair of the highest priority customer issues based on escalation by technicians and customer service agents
- Led the moving of offices twice, creating new layout of stations to increase workflow efficiency leading to peak repair efficiency of 50 boards per day
- Interfaced with customer service for technical support and enacted practices to improve customer service and repair technician workflow and communication

RMA Engineer *October 2017 – February 2019*

- Performed evaluation, warranty determination, repair, and testing of customer boards, reaching peak of 15 boards daily
- Evaluated components and modules with specialty test fixtures, analysis of customer service case report, and analysis of error logs
- Performed module repair and component replacement of peak 30 modules per day. Repairs were done with hand tools, powered tools, and product specialty equipment