Kevin (JY) Jiang
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Education

University of California, Santa Cruz, Santa Cruz, CA
M.S. Electrical & Computer Engineering (Robotics) *Sept 2024–Jun 2025*
B.S. Robotics Engineering, with Honors *Sept 2019–Jun 2024*
Minor: Electrical Engineering

Technical Skills

Programming: Python, C, C++, MATLAB, Verilog, Git
ML/CV: TensorFlow, PyTorch, OpenCV, CNNs, Object Detection
Robotics: ROS, PID Control, Kalman Filtering, Mechatronics, Pneumatics
Modeling: SolidWorks, Onshape, NX CAD, COMSOL, UAV Control
Electronics: KiCad, Circuit Design, Signal Processing
Prototyping: FDM/SLA 3D Printing, Laser Cutting, Welding
Languages: English, Mandarin

Experience

Electrical Mechanical Engineering Specialist *Jun 2025–Present*
Braingeneers, Santa Cruz
Supported bioelectronics research through PCB design, and simulation development.
- Optimized electroceutical PCBs, increasing efficiency by 75%.
- Conducted parametric studies in COMSOL, improving electrode design.
- Collaborated with multidisciplinary teams to meet milestones.
- Resolved engineering challenges, improving system performance.

Lab Technician *Dec 2024–Jun 2025*
Baskin Engineering Laboratory Services (BELS), Santa Cruz, CA
Enhanced prototyping workflows and trained staff and researchers in advanced fabrication tools.
- Standardized 3D printer & laser-cutter protocols; increased safety/throughput by 30%.
- Trained entry-level engineers; reduced failed prints by 25%.
- Built sensor calibration tools; cut measurement error by 15% across 20+ projects.

UCSC Rocket Team Graduate Technical Advisor *Aug 2024–Jun 2025*
Santa Cruz, CA
Advised on mechanical and electrical design for competition-level rocketry projects.
- Optimized mechanical components, improving performance by 20%.
- Enhanced power distribution, reducing system weight by 100g.
- Guided fin and capstan design, reducing assembly time by 15%.

Researcher (Soft Robotics) *Jun 2023–Aug 2023; Jan 2024–Aug 2024*
Tactile Manipulation Laboratory
Developed system identification models and closed-loop controllers for soft robotic actuators.
- Identified ARMAX model; designed PID for fluid-elastic actuator, improving tracking by 40–43%.
- Prototyped silicone end-effectors and test rigs; boosted experiment throughput by 25–30%.

ECE118 Mechatronics Tutor *Jun 2024–Aug 2024*
University of California, Santa Cruz
Mentored and supported students through robotics design labs and final projects.
- Tutored 90+ students, improving project success by 20%.
- Mentored in robotics, reducing system design errors by 15%.

Projects

Robotics & Controls: Soft Robotics PID (+40% precision); Robot Arm Control (Jacobian planner, +30% efficiency); Autonomous Robot (navigation system, +25% accuracy); D.O.R.A UAV simuation.
Embedded Systems: Verilog VGA Game (HW/SW integration); STM32 Bluetooth (+20% connectivity); Auto-Ranging Flashlight (LiDAR-based).
Computer Vision: Fake Coin Detector (98% accuracy with CNN/OpenCV).

Coursework

Robot Kinematics & Dynamics, Feedback Control Systems, Mechatronics, Bioelectronics, UAV Systems, Microcontroller Design, Linear Dynamical Systems, Kalman Filters, System Identification, Sensing & Sensors, Analog Electronics, Convex Optimization, Capstone & Thesis in Robotics