KEVIN PALISOC

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EDUCATION

Massachusetts Institute of Technology *Graduated June 2018*

B.S. in Mechanical Engineering with Conc. in Product Development (Course 2-A)

Select Coursework: Product Engineering, Design and Manufacturing, Robotics, Engineering Leadership, Statics and Materials, Dynamics, Thermal-Fluids, Measurement and Instrumentation, Applied Electronics, Numerical Computation, Japanese 4

INDUSTRY

Aperia Technologies
Product Design Engineer
July '18 - Present, Summer '17 (Intern)

- Engineering lead, responsible for hardware pilot-readiness of new IoT truck technology offering: requirements definition, component selection, managing 5+ overseas suppliers, primary interface to product and operations;
- Owning end-to-end mechanical reliability testing: test flow design, parameter definition, execution;
- Providing engineering direction, technical review, and project management to electronics co-design firm;
- Driving design and build of new PDM structure: released 15+ unique parts and assemblies;
- Improved several existing production designs and drawings (yield, FAI, IQC), evaluated overseas vendors;
- Designed a prototyping bench: integrated pneumatics (0-200 psi), uninterruptible AC to DC power;

Vecna
MechE Intern | Winter '17

- Proved concept and validated failure mode cycle lifespan of a novel hydraulic actuator (1,200 psi) through implementation of a test rig for a DARPA funded robot arm project

Draper
MechE Intern | Summer '16

- Owned and delivered chassis structure and mounting for a scaled autonomous test vehicle;
- Designed for manufacturing and created engineering drawings of 15+ mounts and parts

PROJECTS

Coordinate
(Search and Rescue)
Fall '17 - Senior Capstone

- Delivered alpha prototype GPS system of 10 total devices (3 unique) from concept to live demo in 6 weeks, after user testing and rapid prototyping to balance function, appearance, and manufacturability;
- Drove plastic parts design: delivered 3 iterations of enclosure bodies and covers, designed internal features for replaceable batteries, buttons, screen, PCBs, antennas, interfaced with EE team on design trade-offs;
- Designed for waterproofing through custom gaskets and liquid adhesives;
- Created toolpaths for CNC milling and supported rubber molding and finishing processes;
- Presented on behalf of team at simulated product launch to over 250,000 online viewers and 1100 live (video)

Aquadio
Team Lead
Spring '18

- Initiated, recruited, and led a multi-disciplinary team of 12 engineers to develop a swim wearable with fitness analytics and underwater voice communication, raised $3500 in external funding;
- Supported all mechanical aspects: industrial design, waterproofing, pin charging, bone conduction acoustics

Assistive Robot Arm
Fall '17

- Delivered serial elastic actuated robot arm in 50% of budget, designed to assist hemiplegic patients;
- Owned design of arm linkage: aluminum structure, thrust and ball bearing joints, and belt power transmission

LEADERSHIP

MIT Phi Kappa Theta *President (Ex- VP, Treasurer)* Spearheaded growth: increased brother residency from 83% to 94%; drove $70,000 in renovations in 1 year and gathered funding (75% grants); increased summer tenancy income by 22% ($11,000) in 1 year

MakeMIT (TechX) *Organizer* Coordinated hardware hackathon; individually secured $12,000 worth of corporate funding and materials

FIRST Robotics 6112 *Team Lead* Achieved first place in state and led engineering and business efforts for a competitive robotics team

TECHNICAL SKILLS

CAD & CAM | Solidworks w/ Simulation (FEA), GD&T, HSMWorks, MasterCAM, Tooling Design, Rendering

Manufacturing | Injection Molding, CNC Machining, Lathe, Mill, 3D Printing, Rubber Molding, Investment Casting

Programming & Electronics | MATLAB, HTML & CSS, Arduino & Breadboarding, Oscilloscope