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## EDUCATION

**Massachusetts Institute of Technology**

*Class of 2018*

*Candidate for B.S. in Mechanical Engineering*

**Select Coursework:** Design and Manufacturing I & II, Dynamics and Control I & II, Mechanics and Materials I & II, Thermal-Fluids I, Measurement and Instrumentation, Mechanical Engineering Tools, Numerical Computation, Differential Equations, Japanese IV

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## EXPERIENCE

**Vecna**

*Robotics Mechanical Intern*

*January 2017*

- ❑ Design and implementation of a test rig to evaluate a novel hydraulic actuator for use in a DARPA funded robot arm project
- ❑ Repaired and validated performance of lifting capability of a warehouse robot

**Draper**

*Autonomous Vehicle Intern*

*Summer 2016*

- ❑ Designed and implemented all chassis and electronics packaging for a novel autonomous mobility scooter as a scalable test vehicle;
- ❑ Designed for manufacturing and created technical drawings of over a dozen mounts and parts that were professionally machined and 3D printed;
- ❑ Researched path planning algorithms to improve efficiency and safety

**MIT Distributed Robotics Lab**

*Undergraduate Researcher*

*Fall 2015*

- ❑ Designed and prototyped an adaptive control module to improve capability of printed hydraulic systems;
- ❑ Designed motor mount for printed hydraulic hexapod robot

**MIT Newman Lab**

*Undergraduate Researcher*

*Summer 2015*

- ❑ Developed GUI with real time plotting, calibration, and active stiffness and damping adjustment to improve experimental data logging capabilities for a wearable physical therapy device
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## LEADERSHIP & ACTIVITIES

**Phi Kappa Theta - Mass Eta**

*Chapter President*

*Spring 2016 – Current*

- ❑ Spearheading chapter activities of summer tenancy, community involvement, conflict resolution, member accountability, house maintenance, and finances of an over \$300,000 per year budget

**MakeMIT (TechX)**

*Organizer*

*Fall 2015 – Spring 2016*

- ❑ Coordination of corporate sponsors, tools and materials, and mentors for MIT's hardware and prototyping hackathon hosting 250+ college students

**MIT Chinese Students Club**

*Member Outreach Chair*

*Spring 2016 – Current*

- ❑ Spearheading efforts to foster a welcoming environment and engage new and returning members

**FIRST Robotics Team 6112**

*Team Lead*

*Fall 2012 – Spring 2014*

- ❑ Led mechanical design, engineering notebook documentation, business plan creation, sponsor relations, and outreach efforts for a competitive robotics team;
  - ❑ Designed and manufactured end gripper and grappling hook winch system
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## TECHNICAL SKILLS

**Computer Aided Drafting & Manufacturing** | Solidworks, MasterCAM

**Manufacturing** | CNC Machining, Injection Molding, 3D Printing, Laser Cutting, Conventional Machining

**Programming** | MATLAB, Python, HTML & CSS, Tcl, Ladder Logic

**Electronics** | Basic Circuitry

**Organizational** | Microsoft Office & Visio