

# Abhay Gupta

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## EDUCATION

<b>University of Washington</b>	M.S. Robotics and Controls • Thesis: Graphical modeling of Optical Tweezers & Regression Models	Sep 2018 - Dec 2019
<b>Santa Clara University</b>	M.S. Computer Engineering (Incomplete) • Transferred to University of Washington    3.8	Sep 2017 - Jun 2018
	B.S. Mechanical Engineering • Entrepreneurship minor    Graduated in 3 years with honors    3.6	Sep 2014 - Sep 2017

## SKILLS

Software:	Programming: ML, Python, C/C++, ROS, Matlab, OpenGL, Git, Maple, LabVIEW, Simulink, $\LaTeX$ Design/Analysis: Ansys CFX, Star CCM+, SolidWorks, Abaqus, Autodesk Inventor
Hardware:	Mechanical: Lathe, Mill, Laser Cutting, 3D Printing Electrical: Oscilloscopes, Function Generators, DC/AC Power Supplies, Soldering
Certifications:	Engineer-In-Training, State of CA [05/18] Solidworks CSWA [03/15]

## INDUSTRY EXPERIENCE

<b>CSAA Insurance</b> Physics Consultant	• Evaluated novel engineering and physics aspects for patent applications • Researched alternative approaches for products and methods	Sep 2018 - Dec 2018 (Part-time)
<b>TheraNova</b> R&D Engineering Intern	• Developed a python software analysis system to understand gait measurements • Ensured the software analysis is accurate for 80+ patients	Jun 2018 - Sep 2018
<b>Valeo</b> Systems Engineering Intern	• Produced hardware and software demos for automotive OEMs • Collaborated with start-ups and OEMs to develop new cabin safety features	Apr 2018 - Jun 2018
<b>Pentair</b> R&D Engineering Intern	• Optimized performance of steady state and transient phases of circuit breakers • Laboratory tested and simulated rail heating to melt snow through Ansys CFX	Sep 2017 - Mar 2018
<b>Accel Biotech</b> Mechanical Engineering Intern	• Prototyped medical device components and test assemblies • Supported mechanical, electrical, and software design of a blood diagnostic device	Jun 2016 - Sep 2016
<b>Caltrans</b> Engineering Intern	• Reviewed and advised on structural testing for next generation locomotives • Designed a floor plan using Microsoft Visio & participated in vendor meetings	Jul 2015 - Sep 2015

## PUBLICATIONS & PATENTS

<b>Automobile Damage Detection using Thermal Conductivity</b> J. Schow, and A. Gupta (Patent Pending)	Dec 2018
<b>A Cellular Automaton for Modeling Non-Trivial Biomembrane Ruptures</b> A Gupta, G. Reint, I. Gozen, and M. Taylor (Published in <i>Soft Matter</i> )	Sep 2018

## PROFESSIONAL AFFILIATIONS & ACTIVITIES

<b>Numerical Analysis Research Club</b> , (NARC). Graduate Student Member	Sep 2018 - Dec 2019
<b>Association of Graduate Engineering Students</b> , (AGES). Co-founder and Student Chapter President	Sep 2017 - Jun 2018
<b>American Society of Mechanical Engineers</b> , (ASME). Student Chapter President	Sep 2014 - Jun 2017