Abhay Gupta

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Current: Seattle, WA 98104
Portfolio: abgup.com
U.S. Citizen

After taking a leave to help with family, I am transitioning back into the industry when the right job arises. I am currently working on a custom motor driver using the microcontroller, ESP32, for FRC. Most of my other time is occupied with in mentoring college and high school students, volunteering at a bicycle repair coop & makerspace, and a variety of sports/hobbies.

INDUSTRY EXPERIENCE

Kawasaki Robotics
SW Engineer, Robotics
- Develop software to move wafer handling (scara) robots

AS - Domain Specific Language

Jun 2022 - Aug 2022

SummerBio
SW Engineer, Robotics
- Develop software drivers (6 DOF arms, benchtop systems) for VWorks

C# || Figma   OnShape

Oct 2021 - Feb 2022

Lam Research
SW/ME Engineer || 1y6m
- Develop software and mechanical components to optimize a 6 DOF robotic arm
- Lead and assist Android app development

C# || JavaScript || Python || VBA || Figma   NX || Teamcenter

May 2020 - Oct 2021

CSAA Insurance
Physics Consultant || 2y
- Evaluated novel engineering and physics aspects for patent applications
- Researched alternative approaches for products and methods

Oct 2018 - Oct 2020

PUBLICATIONS & PATENTS

Automobile Damage Detection Using Thermal Conductivity   Dec 2018
J. Schow, and A. Gupta (US Patent)

A Cellular Automaton for Modeling Non-Trivial Biomembrane Ruptures   Sep 2018
A Gupta, G. Reint, I. Gozen, and M. Taylor (Published in *Soft Matter*)

Certifications:
Engineer-In-Training, State of CA   May 2018
Solidworks CSWA   Mar 2015

VOLUNTEERING ACTIVITIES

San Jose Bicycle Clinic & The Bikery, Seattle, Bicycle Board Member & Technician   Jul 2020 - Present
FIRST Robotics Competition (FRC) 254, 5940 & 4180, Engineering Mentor JAVA, Onshape, SolidWorks   Aug 2021 - Present
Reddit Group: r/ControlTheory, Moderator   Dec 2018 - Present

EDUCATION

University of Washington
M.S. Robotics & Data Science
- Thesis - 3D Graphics & Regression Models || 3.6
- Advisors: Steve Brunton & Ashis Banerjee

Python || MATLAB || C++   OpenGL || ROS

Sep 2018 - Dec 2019

Santa Clara University
M.S. Computer Engineering
- Half Completed || 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

MATLAB || LaTeX || C || Simulink || LabVIEW || Maple   SolidWorks || Abaqus || Star-CCM+
Lathe || Mill   Oscilloscopes

INTERNSHIPS || 2y

Microvision
SDE Intern || 3m
- Modeled the response of Lidar activated SiPM (Silicon photomultipliers)

Simulink || MATLAB

Summer 2019

TheraNova
SDE Intern || 3m
- Developed a python software analysis system to understand gait measurements
- Ensured the software analysis is accurate for 80+ patients

Python || MATLAB

Summer 2018

Valeo
Systems Engr Intern || 3m
- Produced hardware and software demos for automotive OEMs
- Collaborated with start-ups and OEMs to develop new cabin safety features

VBA

Spring 2018

Pentair
ME/EE Intern || 7m
- Optimized performance of steady state and transient phases of circuit breakers
- Laboratory tested and simulated rail heating to melt snow

Ansys CFX || Solidworks   Oscilloscopes, Function Generators, DC/AC Power Supplies, Soldering

Winter 2017

Accel Biotech
ME Intern || 3m

- Prototyped medical device components and test assemblies
- Supported mechanical, electrical, and software design of a blood diagnostic device

Summer 2016

SolidWorks   Oscilloscopes

Caltrans
ME Intern || 3m

- Reviewed and advised on structural testing for next generation locomotives
- Designed a floor plan using Microsoft Visio & participated in vendor meetings

Summer 2015