Abhay Gupta

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EDUCATION

Santa Clara University
Sep 2017 – Present

M.S. Computer Engineering
- Cumulative: 4.0 / 4.0 | Major : 4.0 / 4.0

Santa Clara University
Sep 2014 – Sep 2017

B.S. Mechanical Engineering
- Entrepreneurship minor || Graduated in 3 years with honors
- Cumulative: 3.6 / 4.0 | Major : 3.6 / 4.0

SKILLS

CFD (Ansys/Star CCM+)	Machining (Lathe & Mill)	SolidWorks (CSWA Cert.)
FEA (Abaqus/Python Scripting)	3D Printing & Laser Cutting	AutoCAD Inventor
MATLAB/Simulink	LabVIEW & Microsoft Office	LaTeX & C

RELEVANT EXPERIENCE

Pentair
Thermal Engineering Intern
Sep 2017 – Present

- Analyze steady state and transient phases of circuit breakers to optimize performance of heating components through laboratory testing
- Simulate and test rail heating in snow/frost covered environments to determine the optimal setup to ensure proper performance through Ansys Software

Accel Biotech
Mechanical Engineering Intern
Jun 2016 – Sep 2016

- Prototyped medical device components and test assemblies
- Assembled and supported design of electronic blood scanner (CBC 5 part differential)
- Debugged, tested, and assembled various test fixtures
- Managed inventory & updated bill of materials

CycleNow
Product Development Intern
Oct 2015 – Dec 2015

- Researched competing patents and followed competitors
- Designed a potential bike locking Kiosk
- Analyzed future product development opportunities

Caltrans
Engineering Intern
Jul 2015 – Sep 2015

- Reviewed & summarized testing procedures and Railcar/Locomotive documents
- Advised on locomotive structural testing and designed a floor plan using Microsoft Visio
- Designed a floor plan using Microsoft Visio & participated in vendor meetings

ADDITIONAL EXPERIENCE

Santa Clara University
Research Assistant
Jun 2017 – Present

- Topic: Numerical Modeling of Biomembrane Rupture using Cellular Automata
- Programming a novel computational simulation to examine rupture formation in lipid membranes
- Examining cell fracture morphology for disease treatment and prevention

Santa Clara University
Teaching Assistant
Sep 2016 – Jun 2017

- Reviewed homework assignments for differential equations and numerical analysis
- Demonstrated clear communication to elicit problem areas for students

PROFESSIONAL AFFILIATIONS & ACTIVITIES

American Society of Mechanical Engineers, (ASME)
President

- Designed and built a walking-linkage based robot through custom and purchased components
- Planned events, tours and conferences, and managed funds for weekly purchases

Association of Graduate Engineering Students, (AGES)
President

- Fostered relationships between industry professionals and students
- Organized campus events, such as art lessons, cultural shows, and tournaments

Santa Clara Innovation and Design, (SCID)
Outreach Officer

- Connected with other students to encourage activity in organization

CAPSTONE PROJECT

Benchtop Centrifuge

- Prototyped a benchtop centrifuge for the material science laboratory based on customer needs
- Tested enclosure strength through FEA modeling, hand calculations, and physical testing