SMITKUMAR PATEL

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Objective:

Seeking a Mechanical Engineering full-time Entry-level position upon graduation(May 2022), to apply and improve on honed skills. I am coming with strong knowledge of Product development, Automation, Mechatronic, Thermal engineering, design/modeling/manufacturing engineering, and failure analysis.

Education:

Michigan State University East Lansing, MI

Bachelor of Science in **Mechanical Engineer** **Cumulative GPA: 3.95/4.00** Expected Grad: **May 2022**

- **Concentration: Aerospace Engineering**
- On Dean's List for All Semester
- Twice Charles and Mary Jane Spalding Expendable Scholarships – Merit Based

Experience:

Product Development Engineer

Kautex Textron | Troy, MI May 2021 – Aug 2021

- Created and added new template for Engineering Bill of Material(BOM) to increase part, assembly and variants search easier along with quantity, which increase team efficiency by more than 10%
- Support and assisting Clear Vision System team(CVS) with Kautex's Product Lifecycle Management (PLM) document system, presentations, lunching project, Problem Solving and many more
- Research and contribute to changing material for CVS Tank and Created SREA for supplier change.
- Support with reading and analyzing CAD drawing design change and cost VAVE activities
- Gain valuable skills in Flawless Launch Process(FLP), PLM database training, A3 thinking, Fuel System, ADAS allegro training, GD&T training, CVS system training and many more

Design Engineer, Computer Programmer and Mechanical Team leader

SAE & General Motor(GM) | AutoDrive Challenge SEP 2019 – Present

- Convert ordinary car into Level 4 Autonomous car by sensor placement, programming, and electrical work
- Testing and analyze parts component for NVH, thermal, heat transfer, and structure failure using NX
- Created Program to detect camera failure, incorrect data, and blurry vision and provide warning to user
- Optimized Vehicle Controller system 10 times more efficient using MATLAB Simulink and system Dynamics concepts to reduce response time for keeping car in center of lane
- Developed Parts for sensor enclosure/Mount which reduced noise and vibration up to 90% in sensor's data

Sensor Location Analyst, Designer and Project Manager

APTIV | Autonomous Car Sensor Research OCT 2018 – DEC 2018

- Conduct research to analyze location for LiDAR, Radar and Camera while minimizing cost for sensor
- Developed an Innovative strategy to optimized sensor and location which helped saving $5,000 per car
- Diagnosed the strength and weakness of sensors in a different condition to find best location for sensors
- Professionally used problem-solving, project management, creativity, and analytical thinking to meet research requirements and apply the knowledge of engineering principals to increase safety

Cashier and Customer Service

JCPenney | Westland, MI DEC 2017 – AUG 2018

- Handle phone and in-person customer service requests with integrity to resolve their problems
- On busy Day, handle more than 80 customers to solve their problems with 100% satisfaction
- Set up and arrange displays or demonstration areas to attract the attention of prospective customers
- Professionally demonstrated communication skills, and creative solutions to ensure best service

CAD Design Team Member

First Robotics Team | *PCEP High School* SEP 2017 – MAY 2018

- Applied engineering and physic principle to create a design of a robot to meet competition requirements
- Conduct tests of a robot hardware to check the performance and analyses the data to modify the design
- By using simulation, teamwork, and problem-solving skills which increased robot efficiency around 10%

Skills:

- 3D modeling
- CAD Draft reading
- NX Sketcher, AutoCAD, SolidWork, Fusion360
- Altria Inspire
- Finite Element Analysis(FEM)
- Microsoft Office
- Product/Project Development
- Six Sigma
- MATLAB
- C++, Python, HTML & CSS
- Mill, Lathe, FDM
- Molding Process Knowledge
- Project Management
- Problem Solving,
- Teamwork/Leadership,
- Creativity,
- Mathematics
- Failure Mode and Effect Analysis (FMEA)
- International Experience

Certifications:

Engineering Project Management by SAE, Science fair awards, President Prestige, Student of the Month

Organizations & Leadership:

Society of Automotive Engineering (SAE) | Member Present

American Society of Mechanical Engineers (ASME) | Member Present

MSU Engineering Expo | Student Ambassador Feb 2019, Feb 2020

MSU Design Day | Student Member Dec 2018

Project:

- Tri-Cycle Bike Cargo CAD drawing from design to cost analysis
- Reverse Engineering for Pen Design to improve and understand physics behind it
- Build EV3 Robot which self-guide and pick up an object along the path while minimizing time
- Facebook Network Analysis Using Python
- Connect 4 Game using Python which use AI algorithm to find winning sequences
- Create Engineering Design/Draft/Assembly for Part Holder Using AutoCAD
- Maze Game that Auto-generate new level using AI in C++

Activities: Drawing, 3D Printing, Tennis, hiking, researching new topic/Idea

Languages: English (proficiency), Hindi (Native proficiency), Gujarati (Native proficiency)