

BANKIM PATEL

53 Seasons Drive, Scarborough, ON M1X1X4

bankim_r@msn.com

(807)- 356 - 0324 Cell

As a graduated **Mechanical Engineer** and experienced **Technologist**; seeking a role to expand upon learnt industrial and personal skills. Simultaneously, gaining experience through exposure to industrial environments and applications in the Engineering sector with a sense of responsibility and efficiency to help the organization to grow.

HIGHLIGHTS OF QUALIFICATIONS

- Vice president of Mechanical Engineering student department at Centennial College.
- Royal Canadian Air Cadet at 631 Sentinel Squadron (2007-2009) achieved rank of Sargent.
- Self-motivated to take initiative to get things done, and have a strong ability to analyze situations, problem solve and make decisions appropriately.
- Conduct research into the feasibility, design, operation and performance of components and systems
- Review designs, calculations and cost estimates for the proposed systems
- Preparing work safety programs and machines safety manual.
- Understanding useful engineering terminology.
- Demonstrated good interpersonal, communication and organizational skills on academic and workplace level
- Prioritize well and can manage multiple projects and tasks simultaneously. Your organizational skills allow you to be highly detailed while still meeting deadlines
- Experienced in writing engineering design reports with compliance to procedure and presenting the key points to a wide audience
- Modeled, designed and developed variety of projects that helped with application of theoretical knowledge and enhanced understanding of the related courses required for Mechanical Engineering Design
- Organize and manage projects, and prepare material, cost and timing estimates, reports and design specifications for machinery and systems
- Design machines, components, tools, fixtures and equipment

RELATED EDUCATIONAL SKILLS AND PROJECTS.

- Proficient in engineering software including AutoCAD, Master Cam x 6, and Inventor, SolidWorks, MATLAB.
- Able to handle hydraulics and pneumatics system.
- Able to work with different machines to build a given designs within the required deadlines
- Knowledge of safety factors with different machines
- Hands on experience with Lathe, Drill, Milling, CNC machine, Hydraulic Press, and other

machinery in machine shop.

- WHIMIS certificate-Seneca College-2011
- Certificate of completion – AutoCAD 2012 for the professional level.
- In depth knowledge of MS office: Access, Excel, Outlook, PowerPoint, Project, word, etc.

PISTON CYLINDER ENGINE- (January 2014 – April 2014)

- Having a team of three were performing the CAD drawings and dynamics calculations to achieve the target in given time limit.
- Target given to us was to run the device at 50 Psi.
- With precise machining skills, target was achieved, and device was running at 11 Psi.
- Report writing skills and presentation skills were shown and achieved A+ grade.
- This project was presented in the Centennial College: SETAS Technology Fair (2014).

MECHANICAL IRIS (January 2016 – April 2016)

- Project was to make a design and make model of mechanical iris (mechanism of camera aperture)
- Having a team of three for project where highly precision machining was performed.
- Project was highly based on CAD design and less calculations.
- The use of every machine in the shop was required in this project.
- With time management and proper use of skills, this project was done successfully
- This project was presented in the Centennial College: SETAS Technology Fair (2016).

RSPB Re-Gen Suspensions – Passive Regenerative Suspension System September 2018-April 2019 (Mechanical Engineering Degree Project)

- Having a team of four where performing the communications skills and applying engineering knowledge to lead the project in the right direction in given time limit and reporting to the Engineering Supervisor about ongoing progress
- Worked using Lakehead University's resources in order to create a regenerative shock absorber which improved overall vehicle efficiency by 10% with the added benefits of manual dampening which could be integrated within vehicle systems.
- Using a Solidworks and MATLAB, final design simulation is achieved. Using the available resources from Lakehead University, testing will be conducted using harmonic exciter test machine.
- Performed various calculations in order to correlate single mass vibration motion equations to generated power via an electromagnetic system. Manual dampening was carried throughout via a potentiometer. All systems were integrated within one shock absorber which can be adapted to any vehicle.
- Manufactured various iterations and prototypes using many machines (Lathe, Mill, CNC and 3D-Printers) while also managing a much tighter budget margin.
- Presented final project in a professional manner during competition stage. Received an exceptional grade

Submission of projects: Thermodynamics, Heat Transfer, Maintenance, Dynamics of Machine, etc.

EDUCATION

- B.Eng., Lakehead University - Mechanical Engineering Graduated (2019)
- Finished, 'Full-Time' in Mechanical Eng. Technology-Ind. Co-op program at Centennial College. (2013-2016)
- One-year completed in Civil Engineering Technician through Seneca College-2012.
- Ontario Secondary School diploma passed through Woburn Collegiate Institute.

EMPLOYMENT HISTORY

3D printer researcher (Z-BOT) (part time – Jan 2016 to April 2016)

Centennial College, 941 Progress Avenue, Toronto, ON M1G 3V4

- In depth knowledge in 3D printer. Worked as a researcher in 3d printer department in centennial college
- Search the compact solution for 3D printer within school budget.
- Learn how 3D print works with different material such as Rubber, ABS, PLA, etc.
- Know the software CURA which is compliance with the 3D printer.
- Try different material for different application.

Machine shop maintenance (part time – Jan 2016 to April 2016)

Centennial College, 941 Progress Avenue, Toronto, ON M1G 3V4

- Working under many professors and finishes given task in time limit.
- Performing and teaching a proper method to operates the machinery in the machine shop. (Under Professor).
- Helping to student to build project using machining, welding, drafting software, calculations, 3D printer, and feedback to their design.
- Operates CNC machine within safety manner to cut desire design from the advance project students.
- Tool handler.
- Maintenance of machine shop includes; Lathe, Mill, Hydraulic Press, welding booth, Grinding, Bend Saw, and build a required design.
- Constantly overlook the shop for major and minor breakdown and follow safety protocol.
- Given a safety orientation to the students and walk through the designed safety protocols.

Mechanical Engineering Industrial Technology Co-op (Jan 2015 to Dec 2015)

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- Lab Technician (setting up the lab for different subject such as Strength of Material, Fluid Mechanics, Quality Concept)
- Setting up the equipment, performing the Lab, and Calculations.
- Performing Quality control lab using CMM using GenPek.
- Machine shop experience such as working under a mechanical chairman of machine shop where certain project will be given throughout the year. The project contains uses of inventor or Master Cam, lathe, milling machine, drilling machine, tool shop, and hydraulic press, welding. Helping students as they need help in their class project.
- Maintaining machine shop, helping students as they need help in their class project, frequently safety checkup till shop is closed. Report must be submitted to the chair of the machine shop if there is issue regarding safety regulations, machine breakdown. And project updates.
- Working under more than ten professors. Using leadership skills, the task can be done within the time limit.
- Performing lab; Hardness testing, Tensile testing, Impact test, Density and Specific Weight, Viscosity, forces due to static fluids, Bernoulli's Equation, Shear Testing, Torsion Testing, Bending Test.
- Maintains Machine Shop's Machine Breakdown includes Lathe, Mill, Hydraulic Press, Welding booth, Grinding, Bend Saw, etc. Safety Orientation to the Students and look over them while classes are running. Design and make required parts to maintain shop.

Customer Service Representative (Part-time)

May 2013 – Oct 2013

Chef's Depot, Scarborough, ON M1X 1E6

- Inventory, Retail Merchandising and customer service
- Resolve the customer concerns immediately and effectively

Customer Service Representative (Part-time)

Jan 2008 – Dec 2011

Pankaj Enterprises Inc., (Subway 'sandwiches')

- Consistently meet established program sales targets
- Provide exceptional sales and customer service levels

REFERENCE

[linkedin.com/in/bankim-patel-13a13ab7](https://www.linkedin.com/in/bankim-patel-13a13ab7)

Will be provided as requested.