Vishal Nagpal

6046 Cedar Street
Halifax, NS, B3H 2J3
(819) 328-0311
vs746094@dal.ca

EDUCATION

Bachelor in Mechanical Engineering, Co-op Program | *Dalhousie University*

- Consistent Dean's List student
- Multiple-time Sexton Scholar recipient
- Scholarship winner
- 3.92 GPA

Expected Year of Graduation: 2028

TECHNICAL SKILLS

- Fluent and native speaker of both French and English
- Skilled in Python, Java & C
- Proficiency in Microsoft Office
- Extensive knowledge of bearings and mechanical systems
- Experienced in AutoCAD work

WORK EXPERIENCE

Dock Duty
Rideau Canoe Club | 2022 & 2023 (May – August)

- Performed routine maintenance and repairs on club infrastructure and equipment
- Assisted in the design and fabrication of tools to support daily operations
- Applied foundational mechanical engineering principles in practical settings
- Utilized epoxy and composite repair techniques on carbon-fibre watercraft

Junior Engineering Intern
General Bearing Services | 2024 (May – August)

- Supported decision-making for a large-scale technical data migration project
- Gained in-depth knowledge of bearing systems and industry applications
- Contributed to cross-functional office tasks including sales, accounting, and logistics
- Attended client meetings, providing technical support and insight when needed

Administrative Business Support
General Bearing Services | 2025 (May – August)

- Continued supporting technical operations and client projects from previous internship
- Managed accounts payable and processed real estate-related invoices
- Ensured accurate record-keeping and financial tracking for internal operations
- Maintained consistent communication across departments to streamline workflow

PROJECTS

Functioning Prosthetic Hand Prototypes
BioCARE | Mechanical Team

- Designed and iterated detailed CAD models of prosthetic palm prototypes to optimize mechanical function
- Collaborated with interdisciplinary team members to integrate mechanical designs with electrical and software components
- Focused on rapid prototyping and design validation to support long-term product development goals

- Contributed mechanical engineering expertise during the early stages of prosthetic hand design, prior to final production

Hydraulic Mobility Support System
Dalhousie University | Design II Course

- Designed a hydraulic lifting chair to assist users with limited mobility
- Built a mechanical linkage converting horizontal piston force to vertical lift
- Prioritized low-cost materials and simple construction for accessibility
- Iterated based on real user interviews and ergonomic feedback

Autonomous Mechatronic Launch Platform
Dalhousie University | Design II Course

- Collaboratively developed an autonomous vehicle capable of mechanical projectile launching
- Produced engineering drawings and rough design sketches to guide mechanical and electrical subsystem integration
- Designed and prototyped a scalable elastic-actuated launching arm
- Achieved the closest launch accuracy in class performance trials

Interactive Football League Simulator
Java | 2022

- Applied advanced object-oriented programming principles to model teams and league mechanics with modular, extensible classes
- Engineered core simulation algorithms to manage game scheduling, scoring, and season progression
- Designed and integrated GUI components using JavaFX Scene Builder for dynamic visualization of league data
- Conducted thorough testing and debugging to ensure accurate simulation of football league scenarios and statistical outputs

CERTIFICATIONS

- SQL for Data Science (UC Davis, through Coursera)
- Introduction to JavaScript and Ajax: Building Web Apps (John Hopkins University, through Coursera)
- HTML, CSS and JavaScript for Web Developers (John Hopkins University, through Coursera)
- Introduction to CSS3 (John Hopkins University, through Coursera)
- Introduction to Software Engineering (IBM, through Coursera)
- Hands-on Introduction to Linux Commands and Shell Scripting (IBM, through Coursera)
- Python for Data Science, AI & Development (IBM, through Coursera)
- Getting started with Git and GitHub (IBM, through Coursera)
- Developing AI Applications with Python and Flask (IBM, through Coursera)
- WHMIS 2023

REFERENCES

Available upon request.