Dhruvi Patel

Computer Engineering Student

dhruvi1.patel@ryerson.ca
http://www.linkedin.com/in/dhruvipatel24
https://github.com/pdhruvii
(647) 648-1077
Ajax, ON

EDUCATION

Graduating May 2024

Ryerson University
Bachelor of Engineering (BEng), Computer Engineering: Software Specialization [CGPA: 3.37] & Computer Science Minor (In Progress)

SKILLS

Java	**HTML**	**MATLAB**	**Git**
Python	**CSS**	**SQL**	**GitHub**
C/C++	**JavaFX**	**Oracle DB**	**VHDL**
Go	**Turtle**	**PHP**	**Assembly Language**

AWARDS/CERTIFICATIONS

- Leaders' League [2021]
- Dean's List of Academic Excellence [2019-2020]
- DECA Regionals Top 10 Oral Presentations [2019]

PROJECTS

The X Hotel

- Developed a Hotel Relational Database Management System (RDBMS), using Oracle-SQL commands to create, populate tables, etc., with simple/advanced queries and VIEWs
- Enabled customers to reserve multiple, unique room types for preferred lengths of stay, via employee transactions and standard payment methods, among other functionalities
- Produced an Entity-Relationship (ER) Model identifying various types of entities, attributes, relationships, and mapping constraints
- Used Conceptual Schema Design for tables' normalization to 3NF and BCNF forms via appropriate algorithms
- Created a text-based menu for creating, populating, and displaying queries' results of the application and more, via SH Files/Unix (Linux) Shell Scripting implementation and Putty
- Designed Web-based GUI implementation of RDBMS using HTML, PHP, and CSS retaining Oracle-SQL functionality

Reaction? Let's React

- Transformed Engineering Chemistry notes and lecture material into a Structured Python and Pygame-based GUI study guide
- Incorporated three major categories of content with respective subtopics, via essential lecture summaries and practice quizzes

Book It!

- Applied the Software Development Life Cycle (SDLC) in programming a responsive Graphical User Interface (GUI) via JavaFX Framework, allowing for Book Store transactions between the owner/customer(s)
- Produced UML and Use Case Diagrams to identify program flow, optimal design patterns, and participating actors (i.e. owner, customer)
- Used State Design Pattern to allow for internal state/class changes
- Enabled the owner to create/delete both customers and books, and customers to purchase books after successful logins, via File I/O, Read/Write functions and multiple screens

Make It Fly

- Produced a Java application simulating a flight booking system, involving reservations for frequent flyer members and/or non-members and ticket issuing based on seat/flight availability
- Implemented Object Oriented Design/Programming (OOP) principles, like errors/exception handling, JUnit 4 tests, aggregation, abstraction, encapsulation, inheritance, polymorphism, etc.

Sorting Algorithms

- Implemented Insertion Sort, Merge Sort, and Selection Sort algorithms on a deck of unsorted cards using C Programming
- Produced equations for the number of moves, swaps, and compares, as a function of 'n' number of cards, and analyzed complexities and best, average, and worst-case behaviours of algorithms in detail

WORK EXPERIENCE

Engineering Outreach Ambassador, Ryerson University, FEAS Dean's Office — **Sep 2021 - Present**

- Designed and led C/C++, Arduino, Tinkercad (3D Designs and Circuits), and other hands-on Engineering oriented workshops for youth of all ages, participating in Regent Park's YEA! Program, Go ENG as part of the Ontario Network of Women in Engineering (ONWiE), and FuturENG (WEMADEIT) Events
- Encouraged use of the Engineering Design Process with respect to the social impact of product/service design (i.e. lamps, bridges, programs, etc.) while providing students with insight on the numerous Engineering disciplines and day to day applications

Engineering Outreach Camp Counsellor, Ryerson University, FEAS Dean's Office — **May 2021 - Aug 2021**

- Created and executed 20+ STEM oriented workshops for collaborations with Danforth CI, TDSB Centre of Excellence for Black Students Achievement, POW WOW x Ryerson Aboriginal Student Services, Gannett Fleming, and Camp Eureka!, to increase minorities' involvement in Engineering, reduce gaps in the STEM field, and encourage diversity
- Promoted the engagement of 70+ students in enjoyable Scratch, Python, professional communication, case studies/presentations, and other creative build activities, to encourage the leaders of tomorrow to pursue Computer Science, Engineering, and/or other related fields

EXTRACURRICULARS

Ryerson Engineering Competition (REC 2021), Co-Chair — **Jul 2021 - Present**

- Manage 4 individual teams (i.e. Communications, Competitions, Corporate Relations, Logistics/IT) comprising of 50+ team members to safely organize/host an in-person delivery of the Ryerson Engineering Competition 2021 (~200 participants) amidst the pandemic
- Compose and facilitate the distribution of the Sponsorship Package to 500+ companies to acquire sponsors/judges, design 8 unique competitions, manage social media platforms & communication, allocate a $12000+ budget for resources (i.e. media, food, materials), etc.

Ryerson Electrical & Computer Engineering Student Society (RECESS), Events Director — **Sep 2021 - Present**

- Plan and execute career development/stress reliever workshops, alumni panels, course tutorials, game nights, etc., to further allow Engineers to improve their academic, interpersonal, and professional skills and abilities

Ryerson Rams Robotics (R3), Graphic Design & Social Media Outreach Team Member — **Jan 2021 - Present**

- Propose and fabricate numerous captivating graphics/posters and weekly social media posts via Canva and Adobe Photoshop for upcoming team events, holidays, significant days, and more, in order to maintain a sense of togetherness in the Engineering Community