# MEHAK WALIA

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### **EDUCATION**

University of Regina

Regina, SK

Master of Science in Computer Science (4.0/4.0)

Sep 2019 - Aug 2021

**Relevant Coursework**: Software Engineering, Mobile Computing, Parallel Algorithm, Data Analysis from the Internet, Rough Sets and Applications, Cryptography and Data Security, Web Intelligence and E-commerce, Computer Systems Security, and Constraint Programming

**Guru Nanak Dev University** 

Amritsar, India

Bachelor of Technology in Computer Engineering (8.32/10)

Aug 2014 – Jun 2018

#### **EXPERIENCE**

## Saskatchewan Healthcare Pension's Plan (SHEPP)

Regina, SK

Application Analyst (Co-op)

*May* 2020 – *Dec* 2020

- Developed and maintained internal applications using Java, JavaScript, and Oracle Database.
- · Created and designed Business, Pension and IT reports using SQL, HTML, CSS, and XSLT.
- Automated recurring jobs by creating stored procedures in PL/SQL and resolved application and website defects raised by other departments within the company.

University of Regina

Regina, SK

Graduate Teaching Assistant

Jan 2020 - Aug 2021

Courses Taught: Advanced Data Structures and Algorithm Design, Parallel Algorithm, Mobile Computing, and Computer Networks.

· Held regular office hours and graded assignments, projects, literature reviews, mid-terms and final exams.

## **Center for Development of Advanced Computing (C-DAC)**

Mohali, India

Data Scientist, Intern

Jan 2018 – Aug 2018

- Designed, developed and evaluated machine learning algorithms and models to optimize products and services.
- · Built a real-time Traffic Sign Detection and Recognition System using a Deep Neural Network in TensorFlow.

#### **PROJECTS**

LearnML (Website) | Django, Python, KNN, K-means Clustering, Multiple Linear Regression, MongoDB

- Developed an educative platform that introduces its user to Classification, Clustering and Regression.
- The user can upload a pickle file (pre-trained model) or a CSV dataset and train it by tuning the hyperparameters and check the F1-score and accuracy.

Startle (GitHub) | Kotlin, Android Studio

• Built an Android application that pranks other users. Upon running, a pop-up of a scary image appears accompanied by a sound whenever a user clicks anywhere on the screen.

**Sorting Visualizer** (Website) | React.js, JavaScript ES6

· Developed a website that visualizes the mechanics behind the Merge sort, Bubble sort, Quick sort and Insertion sort.

Candy Analysis (GitHub) | Jupyter Notebook, pandas, Scikit-learn, Google Colab

• Designed a logistic regression model that looks at the ingredients of a candy and determines its likability.

#### **SKILLS**

Languages: C, C++, Java, Python, JavaScript, Kotlin

**Application Development:** React.js, Django, Android Studio **Databases:** PL/SQL, MySQL, MongoDB, Room Database

Machine Learning/ AI: Scikit-learn, NumPy, Matplotlib, Pandas, Selenium

Design: MVC, MVVM, Object-oriented Programming, SOLID principles, Simple Factory method, Observer Pattern

## **AWARDS AND ACHIEVEMENTS**

- **GNDU-Hackathon (2018):** Led a team of 10 members to organize the inter-college annual Hackathon. Increased the participation count by 120% and revenue by 100% compared to the 2017's Hackathon.
- GNDU-Hackathon (2017): Winner, against 100+ participants. Won \$500 in prize money.
- Youth Sunshine Club, NGO, Amritsar: Volunteer, taught Math to poor children, renovated public schools and planted trees.