# **Batoul Hariri**

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I am a fresh graduate especially interested in building mobile applications with a smooth user interface, analyzing complex datasets to derive insights, and building machine learning models for classification.

## **Work Experience**

**Research Student** 

#### Nguyen Tien Huy, Online Research Club

Mar 2023-Present

Nagasaki, Japan

- Screening articles to extract questionnaires and surveys and collecting data
- Systematic reviews and original studies
- Contacting authors across the globe for collaborations

## **Projects**

- Machine Learning Project Prediction of Breast Cancer Malignancy
  - Dataset Exploration to visualize data distributions, identify patterns, and assess correlations among variables.
  - o Data Preprocessing: Cleaned and preprocessed raw data, handling missing and null values.
  - o Data Visualization: Created insightful visualizations using various tools to illustrate key insights.
  - Model Development: Employed tree-based models and SVM to build predictive models.
  - PCA for dimensionality reduction then applied unsupervised Learning (Clustering).
  - Hyperparameter Tuning: Optimized model performance by fine-tuning hyperparameters using grid search
- Mobile App Development Project Lunchbox Generator: The app allows users to generate an assortment of lunch items based on their dietary preferences, including lactose-free, gluten-free, vegan, and vegetarian options.
  - Designed and developed the user interface for a responsive and intuitive experience across different screen sizes and orientations.
  - o Implemented database management using SQLite to store and retrieve food items based on user preferences.
  - Integrated email sending functionality using Android intents to enable users to provide feedback directly from the app.
  - Ensured internationalization and localization support by implementing language-specific strings and view layouts for English, Spanish, and Arabic.
  - o Utilized Google Material Library components for a modern and consistent design throughout the app.
  - Utilized Flutter for cross-platform compatibility and Firebase (authentication and firestore)
- Database Project Toy store Database
  - Constructing an ER model and a database schema of the system (attributes and entities)
  - Translating the ER-diagram into relational schemas
  - Building the database on the Oracle Server
  - Normalizing the database up to the BCNF Normal Form.
- Web Development Project Recyclables Pickup Website: Developed a website to facilitate the pickup of recyclable
  materials. Users can select pickup types and provide details, while administrators have the ability to approve pickups
  and manage the actual pickup process.
  - Designed and developed the front-end user interface using HTML, CSS, and JavaScript
  - Implemented back-end functionality using PHP and SQL to store and manage pickup requests, approval status, and pickup process details
  - Integrated WampServer's phpMyAdmin and MYSQL database for data storage and retrieval, ensuring data integrity and security.

# **Technologies and Languages**

- Languages: Java, Python, R, SQL, Dart
- Web Development: HTML, CSS, Java Script, PHP, PHP My Admin, Wamp Server, Ajax, MySQL, Bootstrap, JQuery
- Mobile App Development: Android, Java, Material Design UI, SQLite, Flutter, Dart, Firebase Firestore, FirebaseAuth,
   NoSOL
- Database Management: SQL, Oracle, MySQL, SQLite
- Data Analysis: Python, Spyder, R, R studio, Tableau, Excel, Jupyter Notebook, SQL

### **Education and Certifications**

B.Sc. Bioinformatics with a Minor in Computer Science, Lebanese American University

2020-2024

- Google Data Analytics Certificate Google through Coursera
  - Gaining an immersive understanding of the practices and processes used by a junior or associate data analyst in their day-to-day job
  - Learning key analytical skills (data cleaning, analysis, & visualization) and tools (spreadsheets, SQL, R programming, Tableau)
  - Understanding how to clean and organize data for analysis, and complete analysis and calculations using spreadsheets, SQL and R programming
  - Learning how to visualize and present data findings in dashboards, presentations and commonly used visualization platforms

## **Volunteer Work**

- Newsletter Writer (All Girls Code)
- Historical Document Transcriber (Smithsonian Museum Digital Transcription Centre) Transcribing handwritten historical documents into digital formats
- Chemistry Article Writer (Chemtalk) Explaining complex chemistry level chemistry concepts
- **Disaster Relief Volunteer (DSC)** Assisting in blood drives and fundraisers
- Coordinator (MMKN) Tracking student and tutor attendance
- Biology Tutor (MMKN) Tutoring public school eighth graders

#### Interests

- Animal lover I have a cat of my own.
- Avid reader I have read most fiction and fantasy novels worth reading.
- Art enthusiast graphite sketching, light and shadow, portraiture, watercolor, crochet, embroidery, clay sculpting, in addition to deep knowledge of art history and analysis.