Nour Sleem

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EDUCATION

Lebanese American University **Beirut - Lebanon**
Bachelor of Science - Computer Science *September 2022 - May 2025*

- MEPI Gender Studies Scholarship Awardee (MEPI TLS)

TECHNICAL SKILLS

Languages: *Python, Java, JavaScript, PHP, TYPESCRIPT, HTML/CSS, .NET, C, CUDA C*

Skills: *Artificial Intelligence, Generative AI, Computer Vision, User Research*

Tools: *SQL, API/REST, Python, Git/GitHub, AWS, Tensorflow, Angular, Vue.js, Jira, Visual Studio*

EXPERIENCE

KamKalima **Beirut - Lebanon**
Software Development Intern *April 2025 - July 2025*

- Improved backend code quality in a Laravel (PHP) application
- Refactored legacy code and fixed bugs for better performance and scalable solutions
- Used JavaScript to build and debug frontend features
- Applied MVC principles and integrated RESTful APIs

IDS FinTech **Beirut - Lebanon**
Software Development Intern *April 2024 - August 2024*

- Developed web applications using the Angular framework and TypeScript
- Integrated DevExtreme components for dynamic user interfaces
- Fetched real-time data using SignalR and hubs, enhancing live data updates in applications
- Contributed to backend development using .NET, gaining practical experience with APIs

Lebanese American University **Beirut - Lebanon**
Administrative Assistant *May 2024 - May 2025*

- Worked in the Development Office, assisting with data management and maintenance tasks
- Used the Raiser's Edge to manage and update donor and alumni data
- Queried and analyzed data to support fundraising and development efforts
- Assisted with generating reports, tracking donor interactions, and ensuring data accuracy

PROJECTS

Machine Learning Model for Lassa Fever Prediction
Research *December 2025 - June 2025*

- Developed a predictive machine learning model using Radial Basis Function.
- Neural Networks (RBFNN) simulate the spread of Lassa Virus Fever (LVF) based on population disabilities.
- Implemented and optimized the model using Levenberg-Marquardt backpropagation, achieving high accuracy through validation techniques including error histograms, state transitions, and regression testing.
- Applied numerical methods such as Runge-Kutta to generate training datasets and evaluated performance using Mean Squared Error (MSE) and absolute error metrics.
- Modeled disease transmission between human and rodent populations using a nonlinear system of differential equations, reflecting real-world epidemiological dynamics.

University Event Management System
Mobile App *March 2025*

- Designed and developed a mobile app in Java (Android Studio) to manage university events with

distinct user and admin interfaces.

- Enabled students to browse and reserve events, mark favorites, submit feedback, and receive real-time notifications.
- Provided tools to create/manage events, track reservations and attendance, respond to user feedback, and send broadcast updates.
- Integrated advanced features like QR code check-ins, calendar syncing, role-based access control, and interactive engagement tracking.

Heart Attack Risk Prediction using Machine Learning
Website *December 2024*

- Designed and implemented a machine learning model-based web application to predict heart attack risk based on user inputted health features.
- Used Python for model development, scikit-learn for machine learning, Angular for the front- end, Flask/Django for the back end, and AWS for deployment.
- Integrated six advanced machine learning models for high-accuracy classification Provided real-time predictions with an interactive and user-friendly interface.
- Deployed the application on an AWS EC2 instance with a scalable architecture. Ensured data security and privacy compliance for sensitive health information.
- Successfully delivered a predictive analytics tool with over 83.7% accuracy.

Express.js Web Application on Amazon ECS
Deployment *November 2024*

- Deployed a containerized Express.js web application on Amazon Elastic Container Service. Built and containerized the application using Docker, creating a Docker image and pushing it to Amazon Elastic Container Registry.
- Configured ECS clusters to manage containerized workloads efficiently.
- Utilized an Application Load Balancer to route traffic dynamically and balance requests across multiple containers.
- Applied Security Groups to restrict unauthorized access and ensure secure communication.
- Enabled auto-scaling to handle varying traffic loads and maintain high availability.

Stock Tracking and Trading
Website *August 2024*

- Developed a web application to track real-time stock price updates and trading insights, interactive dashboards with filtering and sorting options, secure user authentication and role- based access, RESTful API integration for data persistence and retrieval.
- Angular for the front-end, .NET for the back end, SignalR for real-time data updates, and DevExtreme for UI components.

EXTRACURRICULAR & VOLUNTEERING ACTIVITIES

Women's Political Involvement in the MENA Region: Monarchies vs Republics *December 2024*

- Authored and published a policy paper analyzing barriers to women's political engagement and proposing actionable recommendations for increased representation and participation.

Empowering Women in Conflict Zones

- Hosted workshops on women's rights and political participation, focusing on empowering women to engage in decision-making during and after conflict.

Fundraising for Hope: Supporting Displaced Communities

- Led a fundraising campaign to provide essential resources to families displaced by regional conflicts, ensuring access to food.

Lebanese American University, Beirut, Lebanon *September 2024 - May 2025*

- Human Rights Club - Secretary