

Hani Abdel Ghani

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Professional Experience

- Software Engineer Intern, BMW Group** 09/2025 – 02/2026
Munich, Bavaria
- Delivered Angular and .NET features in a 3-engineer Scrum team on 4-week sprint cycles
 - Worked closely with Jira by following tasks and commenting, updating them
 - Refactored Angular visualization service using the Strategy pattern, replacing nested conditionals with a pluggable architecture for multiple layout algorithms
 - Migrated 3 Angular applications to v20, upgrading internal and external libraries and refactoring to modern patterns
 - Adopted Angular Signals and integrated RxJS interoperability across migrated applications
 - Built custom 2D/3D logistics visualizations in Three.js for container layout, rotation, and weight distribution analysis
 - Developed a WebRTC peer-to-peer channel for real-time client position sharing, eliminating the need for a relay server
- Coding Instructor, Geek Express** 11/2022 – 09/2025
Remote
- Taught Data Analysis, Game Development, Web Development, and App Development
- Software Engineer Intern, Inmind.academy** 02/2025 – 03/2025
Mkalles, Matn
- Implemented NgRx state management to decouple component communication
 - Integrated Angular Service Workers for lazy caching, and API response caching, and secured application routes using guards with cookie-based refresh token authentication
 - Built a .NET backend for cart operations following Clean Architecture, containerized with Docker and NGINX, and automated CI/CD via GitHub Actions
- Software Engineer Intern, IDS** 12/2024 – 01/2025
Remote
- Developed Social media application using .NET, and React
 - Implemented JWT for user authentication and BCrypt for Password Hashing
- Python Developer, VaccaroHr** 07/2024 – 08/2024
Remote
- Automated Excel sheets procedures related to HR work using Python

Education

- BSc Computer Science, Holy Spirit University of Kaslik** 05/2026
Zahle, Lebanon

Projects

- Truck Loading, Angular, ThreeJs, Fast Api, Redis**
- Architected a multi-algorithm (Island Genetic Algorithm, BLF/Best-Fit heuristics, MaxRects guillotine) behind a Strategy pattern with real-time progress streaming
 - Implemented Redis rate limiter middleware per-IP
 - Developed an interactive 3D visualization with drag-and-drop and weight heatmap
 - Built a custom spatial indexing structure (grid-based $O(1)$ collision detection) to replace $O(n^2)$ brute-force checks for large container sets
- Parallelizing Algorithms Experiment, C++, STL, OpenMP, Git**
- Designed and implemented serial and parallel versions of Merge Sort and Quick Sort in C++ using OpenMP task-based parallelism, achieving up to 4.4x speedup on 1M-element arrays compared to the serial baseline
 - Engineered a cutoff threshold mechanism to control task granularity, and conducted a Monte Carlo experiment across varying thresholds and input sizes to empirically determine the optimal cutoff value that maximized speedup while minimizing task creation overhead
 - Built an automated test harness that benchmarks each configuration across multiple input sizes (100K, 500K, etc..) and thread counts, capturing execution time, speedup, and efficiency for each run

Skills & Languages

Programming Languages

C, C++, JavaScript, TypeScript, Python, C#

Languages

English, Arabic

DevOps & Tools

Docker, NGINX, GitHub Actions, YAML, Git, Figma, Power Apps, Power BI

Frameworks/Libraries

OpenMP, Angular, .NET, NGRX, RXJS, STL, ThreeJS

Volunteering

- Code Your Future, Mentor** 09/2024 – 09/2025
Remote
- Mentored trainees through code reviews and progress tracking