

# Nabil Alhaffar

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## Professional Summary

Dynamic full-stack software engineer with over 4 years of experience in designing, developing, and maintaining web and mobile applications, as well as APIs. Expertise in end-to-end development, from initial design to deployment and ongoing maintenance, with a focus on creating scalable, efficient, and user-friendly solutions. Strong background in Agile methodologies and modern cloud platforms, including AWS, Azure, and Firebase. A motivated leader with a customer-centric approach and a passion for delivering exceptional results.

## EDUCATION

### University of Evansville

*Bachelor of Computer Science | Minor in Mathematics | GPA:3.45*

**Evansville, IN**

*December 2021*

## WORK EXPERIENCE

### Freelance/Self-employed

**Remote**

*Software Engineer*

*01/2021 - present*

- Successfully completed and delivered 11 web/mobile app projects mostly related to e-commerce using multiple tech stacks including C#/.NET, MVC and MEAN.
- Demonstrated working knowledge in modern front end technologies (React, Angular), as well as cloud computing platforms (Azure, AWS).
- Ensured satisfaction by iteratively collaborating with clients to understand dynamic requirements and deliver tailored solutions.
- Provided clean, organized code adhering to SDLC principles and OOP design patterns and best practices, as well as provided documentation for easy maintenance and future updates.

### GE Appliances, A Haier Company

**Louisville, KY**

*Software Engineering Co-op*

*01/2019 - 08/2020*

- Successfully translated 4 novel ideas from scratch into functional products/features to be introduced within the GE Appliances product line, and was awarded utility patents.
- Leveraged skills in C#/.NET, C/C++, Python and other tech stacks to create and deliver novel functional prototypes and demonstrate them periodically to C-Suite executives and product line managers.
- Collaborated with electrical and mechanical engineers within GE Appliances to acquire needed hardware and electronics knowledge to ensure complete prototype functionality.
- Gained AI and machine learning exposure by learning data collection and how to model and train data for predictions using supervised, unsupervised and ensemble learning algorithms.

## LEADERSHIP EXPERIENCE

### Metro By T-Mobile

**Evansville, IN**

*District Manager*

*06-2017 - 08/2020*

- Provided leadership and directed all operations within a franchise of six stores, ensuring compliance with corporate policies and procedures and attainment of company targets.
- Consistently surpassed corporate monthly sales objectives and KPI's for all six locations with an average of 135% increase in net profit and recognition as some of the top performing doors in the Mid-Atlantic/Great Lakes region.
- Provided coaching and mentoring to all levels of staff, including sales associates and store managers in effective selling and sales maximization, sales and CRM software usage (Oracle XStore, RTPOS, CSG) error handling, inventory control, merchandising techniques and customer service protocols.

## TECHNICAL SKILLS

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**Coding Languages:** C#, C/C++, Java, JavaScript, Python, Swift

**Frontend Development:** ASP.NET, Angular, React, Vue.js

**Networks/CP:** WebSockets, BLE GATT, TCP/IP

**Authentication/Authorization:** Tokens, JWT, OAuth

**Software Practices:** Agile, SDLC, TDD, OOP, CI/CD

**AI/ML Algorithms:** Random Forest, K-means

**Mobile Development:** iOS, Android, Xamarin X-platform

**Backend Development:** ASP.NET Core, Django, restful APIs

**Database/Storage:** SQL, NoSQL MongoDB, Entity Framework, Redis

**Cloud Tech:** Microsoft Azure, AWS, Google Firebase

**Embedded Development:** IoT, RPI, Arduino

**AI Tools/Libraries:** TensorFlow, Keras, OpenCV, PyTorch

## LEADERSHIP AND SOFT SKILLS

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**Problem Solving:** analytical/critical thinking, detail oriented

**Effective Communication:** active listening, clear articulation

**Customer Service:** conflict resolution, product knowledge

**Team Building:** collaboration, trust building, motivation

**Time Management:** delegating, prioritizing tasks, scheduling

**Adaptability:** flexibility, resilience, open-mindedness, innovation

**Cultural Awareness:** sensitivity, inclusiveness, empowerment

**Strategic Planning:** risk assessment, goal setting, execution

## HIGHLIGHTED PROJECTS

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### *Stock Market Real-Time Web Trading API*

- Designed and developed a high-performance **ASP.NET core backend trading REST API** supporting live and paper trading (buying, selling, short selling) using real-time market data via Alpaca WebSocket streaming.
- Integrated **Alpha Vantage API** for **technical indicators (RSI, MACD, etc.)** and dynamic historical stock data retrieval.
- Implemented **portfolio tracking and historical performance**, summarizing open positions, P&L, and market exposure.
- Built **watchlists** and **real-time alerts** for price movements and market conditions using directional trading signals.
- Optimized API performance with **Redis caching**, reducing response times for frequently accessed data.
- Ensured scalable architecture with **MongoDB (hosted on AWS EC2)** for trade history and user portfolios.
- Applied skills: C#, ASP.NET core, MongoDB, ASP.NET Identity, Redis, websockets, AWS EC2, Docker.

### *Smart Tea Pot*

- Developed a full-stack wearable smartwatch application on the **Tizen.Net** framework.
- Utilized watch sensors to measure **real-time body vitals**, providing tea recommendations to neutralize imbalances based on data previously collected.
- Implemented **Low Energy Bluetooth communication** to trigger the teapot based on the corresponding time and steeping temperature through **Generic Attribute Profile** services and requests.
- Applied skills: C#, Python, Tizen.Net, IoT and BLE (Bluetooth Low Energy) and GATT.

### *Metro By T-Mobile® Franchise Inventory Management System*

- Combined both disciplines (software and sales) to develop a **full-stack Xamarin Forms** cross-platform mobile application to manage inventory in a Metro by T-Mobile® franchise and facilitate operations at warehouses and stores at a franchise level.
- Incorporated an **ASP.Net core web REST API** for communication with an **SQL database** hosted on **Azure**.
- Applied skills: C#, RESTful APIs, XML, JSON tokens, JWT, Xamarin Forms, ASP.Net Core, SQL management.

### *Smart Knife Station*

- Designed and developed an RPI based AI-enabled device that listens to audio commands and identifies the most suitable cutlery item from a kitchen set based on data collected.
- Applied skills: Python, Microcontroller embedded development, SQL databases, hardware, electronics.

### *Radio Frequency Fall Detector*

- Wrote code in C to program a radio frequency sensor to **detect falls and localize moving targets**.
- Wrote a python script that used the **Random Forest Algorithm** to train a model based on collected data to assist in substantiating predictions and help navigate edge cases avoiding false positives.
- Implemented **SMS alerts** through Twilio to promptly notify registered caregivers upon fall detection.
- Applied skills: C/C++, Python, Random Forest algorithm, IoT, SMS integration, and hardware.

### *Color-based Smart Toaster*

- Developed a toaster using **OpenCV and the K-means clustering** machine learning algorithm to consistently toast bread to the desired shade of goldenness through collecting and processing a large set of image files.
- Implemented **color processing algorithms** for precise control.
- Applied skills: Python, OpenCV, K-means clustering algorithm, and embedded hardware systems.