

# DABIR HASAN RIZVI

**Software Developer**  
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**Links** - Portfolio, LinkedIn, GitHub

## PROFESSIONAL SUMMARY

Result-driven Software Developer with strong academic credentials and over a year of experience working in agile teams to develop web-based applications. Proficient in object-oriented programming with a strong research interest in computer vision. Technologically savvy and with a drive to excel, I am eager to contribute effectively to the organisation's success.

## WORK EXPERIENCE

### Junior Web Developer, Net World Sports, Wrexham

07/2022 – 06/2023

- Built responsive and reusable Vue.js front-end components, optimising performance within a micro-service architecture.
- Enhanced user experience for the company's blog website, collaborated with content and SEO teams to implement responsive design.
- Streamlined workflows across departments by creating a Chrome extension, integrating APIs to address pain points and increase productivity.
- Employed agile methodology to migrate 40+ e-commerce stores from Magento 1 to Magento 2, improving website performance and customer experience.
- Tools and Technologies used: JavaScript, Gulp, PHP, jQuery, PostgreSQL, Vue.js, Magento 2, WordPress, Nginx, HTML, CSS, Sass.

### Java Programmer (Internship), Racks & Rollers | Storage Technologies & Automation, Bengaluru

01/2020 – 07/2020

- Developed a scalable Pick-to-light system GUI, aligning with technical standards.
- Engaged in the complete software development life cycle, encompassing performance analysis, design, development, and testing, to deliver an optimal user experience and ideal functionality.
- Leveraged Scrum and Test-Driven Development (TDD) to streamline the development process and ensure high-quality software delivery.

## EDUCATION

### MSc. Advanced Computer Science (with Integrated Year in Industry), Aberystwyth University

09/2021 – 12/2023

- **Relevant Modules:** Machine Learning for Intelligent Systems, Modelling Managing and Securing Data, Statistical Concepts Methods and Tools, Agile Software Development Project.

### Bachelor of Engineering in Electronics and Communication Engineering, CMR Institute of Technology

08/2016 – 08/2020

- **Relevant Modules:** Programming in C and Data Structures, Python Application Programming, Operating Systems, Network and Cyber Security, Programming in Java.

## SKILLS

**Programming Languages:** JavaScript, TypeScript, jQuery, Java, Python, C, C++, C#, R, PHP, HTML, CSS

**Frameworks and Databases:** Vue.js, WordPress, Magento 2, Bootstrap, PostgreSQL, MySQL.

**DevOps and Methodologies:** Git, Docker, Jira, Agile, Google Cloud Platform.

**Machine Learning and Neural Network:** Regression, LSTM, TensorFlow, Random Forest, SVM, ANN, CNN, RNN.

**Computer Vision:** Image Processing, OCR, Object Detection, Image Classification.

**Data Science:** Data Analysis, Feature Engineering, Statistical Modeling, Predictive Modeling.

**Soft Skills:** Communication, Adaptability, Problem-solving, Teamwork, Time Management.

## CERTIFICATION COURSES

**Introduction to DevOps, IBM**

**Vue- The Complete Guide (inc. Router & Composition API), Udemy**

**Machine Learning, Stanford Online**

**Deep Learning Specialization, DeepLearning.AI**

**Introduction to C# Programming and Unity, University of Colorado**

**Game Design and Development Specialization, Michigan State University**

## PERSONAL PROJECTS

### **Robot Movement Automation with Computer Vision.**

- Developed a Robot Movement Automation System using Computer Vision and Digital Image Processing, featuring SIFT algorithm implementation via OpenCV, Unity 3D integration with Vuforia SDK for AR-like feature detection, and Arduino IDE for motor control, enabling efficient object tracking and following target within a Wi-Fi network range.

### **Prediction of Parking areas availability from parking dataset using AI/ML Models.**

- Implemented AI/ML techniques for parking availability prediction using Santander's on-street sensor data.
- Applied LSTM and Random Forest models to assist drivers in Santander by forecasting parking availability for the upcoming hour and enhancing urban mobility through data-driven insights.

### **Prediction of likelihood of Blood-Brain Barrier (BBB) penetration for a chemical compound.**

- Secured 1st place in Aberystwyth University's Kaggle challenge with an accuracy of 90.603%, utilising an SVM model.
- Showcased expertise in feature extraction, model training and precision measurement using the AUC metric.

### **Detecting cardiac arrhythmia using single lead ECG recordings.**

- Achieved an accuracy of 82.947% in a Kaggle challenge, emphasising cardiac arrhythmia classification using the PhysioNet Computing in Cardiology Challenge 2017 dataset.
- Employed random forest and CNN for pattern detection.

### **Speech Recognition.**

- Designed a MATLAB based speaker recognition system using Fast Fourier Transform for feature extraction. Aims to identify speaker based on speech wave characteristics such as pitch.
- Demonstrating practical applications of signal processing and pattern recognition.

### **AR Solar System**

- Engineered an Android application by seamlessly merging Android Studio and Unity 3D, enhanced with Augmented Reality (AR) using Vuforia.
- Provided the ability to the users to scan a predefined image, activating camera permissions to reveal an AR solar system.