

Dabir Hasan Rizvi

Software Developer | Portfolio: dabirrizvi.co.uk

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Professional Summary

Result Driven Software Developer with strong academic credentials and over a year of experience in agile teams developing web-based applications. Proficient in object-oriented programming and passionate about computer vision. Eager to contribute effectively to organisational success with strong technical skills and a proactive approach.

Skills

Programming Languages:	JavaScript, TypeScript, jQuery, Python, Java, C, C++, C#, R, PHP
Frameworks and Databases:	Vue.JS, React.JS, Node.JS, Laravel, WordPress, Firebase, Bootstrap, MongoDB, PostgreSQL
DevOps and Methodologies:	Git, Docker, Jira, Agile, Google Cloud Platform.
Data Science and Machine Learning:	Data Analysis, Feature Engineering, Predictive Modelling, Regression, TensorFlow, PyTorch.
Soft Skills:	Communication, Adaptability, Problem-solving, Teamwork, Time Management

Education

MSc. Advanced Computer Science (with Integrated Year in Industry)

September 2021 – December 2023

Aberystwyth University, United Kingdom

- **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

August 2016 – August 2020

CMR Institute of Technology, Bengaluru, India

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

Work Experience

Junior Web Developer

July 2022 – June 2023

Net World Sports, Wrexham, United Kingdom

- Built responsible and reusable Vue.JS front-end components, optimising performance within a microservice architecture.
- Enhanced user experience for the company's blog website, leading to a 40% increase in user engagement by collaborating with content and SEO teams to implement responsive design.
- Streamlined workflows across departments by developing a Chrome Extension, integrating APIs and boosting productivity by 60%.
- Conducted code reviews, ensured documentation, and maintained high code quality.
- Employed agile methodology to migrate 40+ ecommerce stores from Magento 1 to Magento 2, resulting in a 30% reduction in page load times, an improved lighthouse score by 15%, and an enhanced customer experience.
- Tools and Technologies: JavaScript, PHP, jQuery, HTML, CSS, Vue.JS, Laravel, Node.JS, Magento 2, WordPress, Manifest.json, Bootstrap, Sass, REST API, Elasticsearch, Docker, Git, Jira, Google Cloud Platform, PostgreSQL, MongoDB.

Java Programmer (Internship)

January 2020 – July 2020

Racks & Rollers | Storage Technologies & Automation, Bengaluru, India

- Developed a scalable Pick-to-light system GUI, adhering to technical standards and enhancing operational efficiency.
- Engaged in the complete software development life cycle, including performance analysis, design, development, and testing, to deliver optimal user experience and ideal functionality.
- Participated in client meetings to gather requirements and present progress, enhancing client satisfaction, and increasing efficiency by 20%.
- Leveraged Scrum and Test-Driven Development (TDD) to streamline the development process and ensure high quality software delivery and reducing bug occurrence by 30%.

Personal Projects

Robot Movement Automation with Computer Vision

- Developed a Robot Movement Automation using Computer Vision and Digital Image Processing, featuring SIFT algorithm implementation via OpenCV.
- Integrated Unity 3D with Vuforia SDK for AR-like feature detection and Arduino IDE for motor control, enabling efficient object tracking and target following within a Wi-Fi network range.
- Implemented robust error handling and real-time feedback mechanisms, improving the reliability and responsiveness of the system.

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

- Implemented AI/ML techniques using Santander’s on-street sensor data, applying LSTM and Random Forest models to forecast parking availability.
- Optimised data preprocessing and feature engineering to improve model accuracy, achieving a prediction accuracy of over 77%, which significantly outperformed baseline model.
- Enhanced urban mobility by providing data-driven insights, assisting drivers in finding available parking spots, and reducing traffic congestion.

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

- Achieved 1st place in Aberystwyth University's Kaggle challenge with an accuracy of 90.603% using an SVM model.
- Showcased expertise in feature extraction, model training, and precision measurement using the AUC metric, demonstrating advanced machine learning capabilities.
- Conducted extensive hyperparameter tuning and cross-validation to ensure the robustness and reliability of the predictive model.

Detecting Cardiac Arrhythmia using single led ECG recordings

- Achieved 82.947% accuracy 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, improving the accuracy and efficiency of arrhythmia diagnosis.
- Developed a detailed documentation and analysis report, facilitating further research and development in the field of cardiac health.

Speech Recognition

- Designed a MATLAB-based speaker recognition system using Fast Fourier Transform for feature extraction, aiming to identify speakers based on speech wave characteristics such as pitch.
- Implemented advanced signal processing techniques to enhance the accuracy and reliability of the recognition system.
- Conducted comprehensive testing and validation against a diverse dataset, ensuring robustness across different speech patterns and accents.

AR Solar System

- Engineered an Android application combining Android Studio and Unity 3D with Augmented Reality using Vuforia.
- Provided users the ability to scan predefined images, activating camera permissions to reveal an interactive AR solar system.
- Enhanced user engagement by incorporating detailed planetary information and interactive elements, making the application educational and entertaining.

Certification Courses

The Web Developer Bootcamp 2024 <i>Colt Steele Udemy</i>	January 2024
Introduction to DevOps <i>IBM Coursera</i>	January 2023
Deep Learning Specialization <i>DeepLearning.AI Coursera</i>	December 2022
Vue – The Complete Guide (inc. Router & Composition API) <i>Maximilian Schwarzmüller Udemy</i>	August 2022
Machine Learning <i>Stanford Online Coursera</i>	July 2021
Introduction to C# Programming and Unity <i>University of Colorado Coursera</i>	March 2021

* Referees available on request.