SABIHA BEGUM
Waterloo
sabiha.mmhd@gmail.com, (548) 333-2981, https://www.linkedin.com/in/sabiha-mohamad

PROFILE

A software developer with expertise in full-stack development and AI, ready to tackle challenging projects and deliver impactful results. Experienced in creating responsive web applications and seamlessly integrating predictive models within comprehensive systems. A strong, independent professional eager to contribute web and AI skills to meaningful projects and advance data-driven decision-making

HIGHLIGHT OF QUALIFICATIONS

- Expertise in developing dynamic, responsive front-end applications with JavaScript and TypeScript
- Develop and manage back-end systems with frameworks like Node.js, Express.js, Go, and Django.
- Work with databases including MongoDB, SQL, and PostgreSQL, focusing on effective schema design and query optimization.
- Utilize Docker for streamlined containerization and reliable deployments.
- Implement CI/CD pipelines to automate build, testing, and deployment workflows.
- Deploy applications on cloud platforms like Heroku, AWS, GCP, and Azure.
- Apply JavaScript, TypeScript, Python, and R to AI-driven web solutions.
- Lead Agile project delivery, fostering team collaboration and efficient processes.
- Integrate machine learning models, perform data analysis, and optimize predictive accuracy in AI projects.
- Apply techniques in NLP, computer vision, and data preprocessing to enhance model performance.
- Communicate effectively, solve complex problems, and bring a strong analytical approach to technical
- Skilled in managing end-to-end projects, efficiently integrating back-end, front-end, and machine learning components.

TECHNICAL SKILLS

- Languages: JavaScript (ES6+), Python, R
- Platforms: AWS, GCP, Azure, Heroku, Docker
- Frameworks: React, Angular, Vue.js, Node.js, Express.js, Go-lang, Django
- Databases: MongoDB, PostgreSQL, SQL, Firebase (Proficient in cloud-managed databases like MongoDB Atlas)
- Machine Learning & Deep Learning: Scikit-Learn, TensorFlow, Keras, PyTorch,NLTK,RNN and CNN

EDUCATION

Big Data Solution and Architecture, Conestoga College, Kitchener ***December 2024***

- Specializing in big data technologies such as Hadoop and Spark, with hands-on experience in cloud-based data processing to architect scalable, high-performance data solutions.
  GPA:3.79/4.0

Applied Artificial Intelligence and Machine Learning (Co-op), Conestoga College, ***December 2023***
Waterloo

- Coursework includes Machine Learning, Deep Learning, Natural Language Processing (NLP), and Data Science
  GPA:3.85/4.0

Bachelor of Technology (B.Tech) in Information Technology, Anna University, India ***May 2017***

- Established a solid foundation in software development, data structures, algorithms, and database management systems. GPA:7.8/10
- Gained hands-on experience in Java, Python, and SQL while working on projects in web development and networking

PROFESSIONAL EXPERIENCE

Software Developer, Smart Centre, Cambridge (contract) ***January 2024 – Dec 2024***

- Developed and deployed a scalable full-stack MERN application using MongoDB Atlas, handling 30,000+ records with optimized indexing
- Designed user interfaces and wireframes in Figma to enhance user experience
- Increased MongoDB query efficiency by 25% to support high-performance data retrieval and scalability.
- Applied predictive analysis with data visualization, achieving 20% improved predictive accuracy for data-driven decision-making
- Implemented Firebase SSO for secure user authentication with customizable access roles
- Created and optimized RESTful APIs to ensure efficient client-server communication and data handling
- Set up a role-based user management system with tailored access for admin, analyst, and standard users
- Deployed on Heroku, achieving 40% faster load times and broad cross-device accessibility
- Leveraged Agile practices and Git version control, enhancing team collaboration and project efficiency by 20%.

Frontend Developer, Skyscales, Berlin ***March 2023 - Nov 2023***

- Designed and developed 5 responsive websites using WordPress, later migrating them to React for enhanced functionality and interactivity, resulting in a 15% increase in visitor engagement.
- Customized themes for seamless client branding, achieving a 25% improvement in client satisfaction
- Curated targeted, SEO-friendly content, increasing average site visit duration by 30% and improving site discoverability
- Integrated analytics to track user behavior, providing data-driven insights that informed future content strategy
- Guided clients on hosting setup and domain management, recommending AWS LightSail to improve hosting reliability and cut deployment times by 50%
- Leveraged entrepreneurial skills to manage end-to-end client projects, ensuring seamless delivery of web solutions tailored to business needs

Full Stack Developer, LIFO Technologies Pvt Ltd, India ***April 2021 - December 2022***

- Built and maintained 10+ responsive applications using Angular Ionic, enhancing user engagement by 40%.
- Optimized PostgreSQL databases, reducing query response times by 30%, significantly improving data retrieval efficiency.
- Engineered backend services in Django, including creating superuser roles, which reduced security incidents by 15%.
- Developed and deployed RESTful APIs, which improved client-server communication speed by 25%.
- Integrated SSO with Google, Facebook, and Twitter, increasing user login retention by 35% by simplifying authentication.
- Transitioned static codebases into dynamic, maintainable solutions, reducing future development time by 20% through modular coding practices

ACADEMIC PROJECTS

Analyzing the Relationship Between Mental Illness and Unemployment: A Demographic Study, Data Analysis, Mathematics, Algorithms, Conestoga College ***August 2023***

- Utilized R for in-depth analysis of mental illness data to contribute to the understanding of mental health trends and raise awareness through data-driven insights.
- Implemented machine learning algorithms including Logistic Regression, Decision Trees, and Random Forest to address the research questions.

Sentiment Analysis for Social Media Data, Machine Learning Programming, Conestoga College ***August 2023***

- Annotated dataset with sentiment labels (positive, negative, neutral) based on posts sentiment using pre-trained models from Hugging Face
- Explored various feature representation methods, including bag-of-words, TF-IDF, and word embeddings like Word2Vec.
- Developed a user-friendly interface using Tkinter, allowing real-time sentiment analysis of social media posts and displaying results