# **MARUF AHMED**

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## **CAREER SUMMARY**

With my deep-rooted passion for data and my expanding interest in microservice-based web application development, I am now actively seeking exciting opportunities that will not only challenge me but also allow me to further advance my career. I am eager to contribute my expertise to projects that fuse the power of microservices with cutting-edge technologies, ultimate-ly creating scalable and robust web applications. By combining my existing skills in Data Analysis, Visualization, and Machine Learning with the principles of microservices, I aim to contribute to the development of innovative solutions that solve complex problems and drive business growth.

### **EDUCATION**

#### **BOISE STATE UNIVERSTIY, Department of Computer Science** *Bachelor of Science, Computer Science, GPA - 3.49*

Brown Honors Scholarship (1 of 11 recipients), GEM Undergraduate Scholarship for academic performance, National Science Foundation REU Fellowship, Dean's List - Fall 2016 & Spring 2017, Communications Officer - BSU Bangladeshi Students' Association, Member - Creative Technology Association, Honors Students' Association & Artificial Intelligence Club, BSU department of Computer Science.

# BIRSHRESTHA NOOR MOHAMMAD PUBLIC COLLEGE

*Higher Secondary Certificate, Science, GPA - 5.00* Founding Member - BNMPC Science Club, Cadet Corporal – Army Wing, BNCC, Member - BNMPC Alumni Association. Boise, ID, United States of America 2016-2020

#### Peelkhana, Dhaka, Bangladesh 2012 - 2014

### **EXPERIENCE**

#### APURBA TECHNOLOGIES LIMITED Software Engineer - Machine Learning

- Design, implement, and maintain computer vision and NLP models for various applications, such as image and text classification, object detection, and named entity recognition.
- Pre-process, clean, train and validate computer vision and NLP models using large datasets, optimizing parameters and algorithms to improve accuracy and performance.
- Deploy computer vision and NLP models into production systems and integrate them with other systems and applications.
- Manage and maintain the infrastructure required for ML model training and deployment, including cloud services, computing resources, and data storage.
- Stay up to date with the latest research in computer vision and NLP and perform experiments to test new algorithms and approaches.
- Identify new opportunities to apply computer vision (2D & 3D), NLP (Multilingual), and Machine Learning to different projects.

Dhaka, Bangladesh May 2023 - Present

#### WEBNATION GLOBAL LIMITED Full Stack Software Engineer

- Developed web-based applications for different client projects using PHP/Laravel, JavaScript, MySQL, jQuery, VSCode, and AJAX.
- Participated in the design, testing, and code implementation according to software design specifications, by following standard coding styles and practices.
- Wrote clean and maintainable code and documentation that is easy to understand and modify.
- Conducted code reviews to ensure code quality and consistency.
- Mentored and guided other team members.
- Collaborated closely with cross-functional teams to identify business requirements and design scalable and maintainable solutions.

# APPLIED QUANTITATIVE SCIENCES, INC.

#### Junior Data Scientist

- Created detailed report with PowerBI on optimizing work items for Abbott's equipment servicing team which predicted to decrease the response time by at least 15%.
- Defined Product Strategy and Development Roadmap for Pavement Condition Profiler Web Application.
- Developing a Minimum Viable Product on Asphalt Condition Monitoring for Florida Department of Transportation aiming to drastically reduce inspection cost and increase inspection intervals.
- Automated routine Key Performance Indicator analysis and assessment for Johnson & Johnson's procurement team.
- Developed an application to report the load status of server nodes using InfluxDB and Python for Data Visualization allowing us to implement a load balancer to reduce cloud server costs by 10%.

# METAGEEK, LLC.

#### Software Engineer

- Created variations of existing web pages with Nuxt.js for running split testing experiments using Google Tag Manager and Google Optimize.
- Analyzed site engagement data from Google Analytics and made data-driven decisions to create scalable web pages.
- Rebuilt and Optimized SEO for Educational and Product pages in modern Vue.js-based architecture (Nuxt.js) resulting in 23% increase in overall traffic.
- Worked closely with designers to take wireframes and mockups from conception to implementation on Nuxt.js web framework.
- Participated in daily stand-up meetings, mid-sprint check-in meetings and sprint planning meetings to plan and execute sprint tasks.

# SMART INFRASTRUCTURE RESEARCH LAB, BSU

#### **Research** Assistant

- Trained a neural network model with TensorFlow based on Single Shot Multibox Detector architecture for pavement surface crack detection.
- Achieved 96% prediction accuracy for detecting pavement cracks.
- Designed and built a small-scale autonomous vehicle platform equipped with Nvidia Jetson TX2 for data collection and real-time inference for pavement crack detection.
- Developed an android application that communicates with SCiO near infra-red spectroscope via Bluetooth and sends collected data to a cloud server for analyzation.
- Experimented with various methods of classifying different grades of asphalt samples and created a machine learning classification model that identified grades and amount of additive in asphalt with an average accuracy of 85%.

#### Fort Lauderdale, FL, USA (remote) May 2022 - December 2022

Boise, ID, USA (remote) May 2021 - April 2022

Boise, ID, USA May 2017 - May 2019

#### SKILLS

Programming	Web	Data	Methodologies	Workplace Ethics
• Python • PHP • Java	<ul> <li>JavaScript</li> <li>Laravel • CSS</li> <li>Bootstrap</li> <li>Tailwind • Vue.js</li> <li>Nuxt.js</li> <li>React • jQuery</li> <li>Netlify</li> <li>AWS • GCP</li> </ul>	• MYSQL • MSSQL • Pandas • NumPy • R•Tableau • PowerBI • XML • JSON • ETL • Data Warehouse	<ul> <li>Object-Oriented Programming</li> <li>Agile Development (Scrum)</li> <li>Version Control (Git)</li> <li>CI/CD</li> </ul>	<ul> <li>Teamwork • Communication</li> <li>Empathy • Time Management • Resource Organization</li> <li>Real-time Collaboration</li> <li>Growth Mindset • Problem</li> <li>Solving • Leadership • Analytical Skills • Proactive</li> <li>Approach</li> </ul>

#### REFERENCES

#### **Michael Kubica**

President, Applied Quantitative Sciences, Inc.

**Ryan Woodings** CEO, MetaGeek, LLC.

**Joel Crane** Enterprise Product Manager, MetaGeek, LLC.

**Dr. Yang Lu** Professor, Boise State University Chief Scientist, Smart Infrastructure Research Lab e-mail: mkubica@aqs.ai phone: +1 954.683.2994

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