Md. Samiul Alam

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PROFESSIONAL SUMMARY

Experienced full-stack web developer with four years in industrial software development, specializing in Angular and Node JS. Proficient in Javascript, Typescript, PHP, and other programming languages and skilled in developing and maintaining software solutions. Strong collaborator with cross-functional teams, delivering high-quality projects on time. Committed to continuous learning and staying updated on emerging technologies to drive innovation and efficiency.

WORK EXPERIENCE

- **LAKEHEAD APPLIED GEOMATICS RESEARCH LABORATORY**
  - ***Research Assistant*** *[January 2022 - April 2024]*

  Responsibilities:
    - Conducted RTK GNSS surveys to collect high-precision ground control points for drone mapping projects, enhancing spatial accuracy of aerial imagery.
    - Operated DJI Matrice 300 drone equipped with MicaSense RedEdge multispectral camera for remote sensing data collection.
    - Assisted in planning and executing drone flight missions for aerial surveys, ensuring optimal data acquisition.
    - Processed and analyzed multispectral imagery for various environmental monitoring applications.
    - Developed a web application project using **Python Django** and **Ionic 4** to showcase the crop health monitoring systems built for Masters Thesis

- **LAKEHEAD UNIVERSITY**
  - ***Graduate Teaching Assistant*** *[September 2022 - December 2023]*

  Responsibilities:
    - Delivered a wide range of teaching activities, including tutorials, seminars, and lectures in some instances.
    - Mentored students in developing various complex GIS projects and assignments.
    - Assessment of answers and lab assignments and provide necessary feedback.

- **ENOSIS SOLUTIONS**
  - ***Senior Software Engineer*** *[January 2021 - September 2022]*

  Projects worked on:

- **Inspect Check:** A property inspection software and mobile app in the United States that allows users to conduct paperless inspections on iPad/iPhone or Android devices.

    - Participated and lead in sprint planning, sprint demonstration & sprint retrospective.
    - Identify, prioritize, and execute tasks in the software development life cycle.
    - Streamlined project tracking using Jira, improving task visibility and team collaboration.
    - Assuring best practices and standard coding conventions in the projects.
    - Utilized **Laravel**'s built-in features like resource controllers, API resources, and route model binding to create efficient and scalable API endpoints.
    - Designed database schemas and optimized queries in **MS SQL Server**, reducing query execution time.
    - Designed and and automated a robust reporting solution using **TCPDF** for PDF generation and **PHP-Spreadsheet** for Excel report creation.

  - ***Software Engineer*** *[October 2018 - December 2020]*

  Projects worked on:

- **Powerhouse Dynamics:** Powerhouse Dynamics is the developer of SiteSage and Open Kitchen, revolutionary platforms that enable asset, operations, and energy management for commercial facilities.

    - Developed responsive web applications using **Angular** framework and Angular **Material UI** components, improving user experience.
    - Developed a dynamic dashboard using **Highcharts** & **ChartJS** to visualize real-time data streams coming from IoT devices.
    - Created reusable UI components, reducing development time.
    - Utilizing **Angular lifecycle hooks** to build smooth interactive UI.

- **V-Alert:** Valcom's V-Alert Mobile App empowers your organization to streamline its emergency notification strategy through simple, one-click alert deployment capabilities directly from your mobile device.

    - Developed and maintained **RESTful APIs** using **Node.js (Express)**, improving system response time.

- Implemented **MongoDB** for high-performance, scalable data storage solutions in **microservices architecture**.
- Containerized applications using **Docker**, facilitating consistent deployment across development and production environments.
- Established **CI/CD** pipelines with **Circle CI**, reducing deployment time and improving code quality.
- Created comprehensive **API documentation** using **Swagger**, enhancing collaboration between frontend and backend teams.
- Implemented comprehensive **unit testing** strategies using **Mocha** and **Jest** for **Node.js** applications, increasing code coverage and reducing post-release bugs.

EDUCATION

- **Master of Environmental Studies (Thesis)** *[January 2022 - May 2024]*
  Dept. of Geography and the Environment, Lakehead University, Thunder Bay, ON, Canada (Grade 76%)
- **B.Sc in Computer Science & Engineering** *[September 2014 - December 2018]*
  Ahsanullah University of Science and Technology, Dhaka, Bangladesh (CGPA 3.25/4.00)

ACHIEVEMENTS & AWARDS

Research Grant	Received faculty research grants from the Dept. of Geography and the Environment
Champion	Intra AUST Programming Contest Spring 2017.
Champion	Intra AUST Programming Contest Spring 2016.
2nd Place	Intra AUST Programming Contest Spring 2015.

TECHNICAL SKILLS SUMMARY

Languages	Java Script, PHP, Python, C, C++, Java
Frameworks	NodeJS(Express), Angular, Laravel
Database	**SQL**: MS SQL Server, PostgreSQL, **NO SQL**: MongoDB.
CI/CD	CircleCI
Documentation Tool	Swagger
Stackoverflow	Reputation 2300+

PUBLICATION

[1] **M. S. Alam,** K. KALPOMA, M. S. Karim, A. Al Sefat and J. Kudoh, "Boro Rice Yield Estimation Model Using Modis Ndvi Data for Bangladesh," *IEEE International Geoscience and Remote Sensing Symposium*, 2019, pp. 7330-7333, doi: 10.1109/IGARSS.2019.8899084

WORKSHOPS

- Advanced Data Science & Machine Learning with Python, 2019.
- Modeling Physical Systems with MATLAB Simulink and Simpower, 2018.
- Learn To Write Research Paper Using LaTeX, 2018.

VOLUNTEER EXPERIENCE

1. Problem setter & judge at Intra AUST Programming Contest [2017 - 2022].
2. Event organizer of Intra AUST Programming Contest Fall 2017.
3. Volunteer at two social service organizations, Community Action & Project Pothchola [2015 - 2017].