SAMIUL HAYDER CHOUDHURY

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SUMMARY OF QUALIFICATIONS

- 4 years of production level experience in full stack web development using React, NodeJS, Express, HTML, CSS, Javascript, Git, Angular and VueJS. 10+ years of experience in coding with Python, VBA, C/C++ and MATLAB.
- Experienced with Agile process, server-side application and RESTful API development, and software development life cycle. Capable of making prompt decision and adapting to team environment. Familiar with CI/CD process.
- Currently pursuing a certification on Full Stack Web Development offered by the University of Toronto.
- Experienced in 4D medical imaging (functional MRI), industrial, transportation and architectural noise control, audio/ image processing and hum control.
- Registered with APEGA as a professional member (P.Eng.).
- Enthusiastic and self-motivated with innovative mindset in solving industry-level engineering challenges, and adept in managing multiple projects simultaneously with varying priorities and firm deadlines.

TECHNICAL SKILLS

- **Programming Languages/Frameworks/Libraries:** Strong in React, NodeJS, JavaScript, Express, HTML, CSS, JQuery, Bootstrap, SASS, JEST (Testing), Python, VBA, C/C++, Assembly language, Ruby on Rails, Tensorflow, PyTorch and Scikit-learn. Comfortable with Objective-C, VueJS, Typescript, Angular, LaTeX& PHP.
- **Cloud Computing and Containerization:** Experienced with Docker, AWS, Azure and Microsoft Dataverse.
- **Database Management and Version Control:** PostgreSQL, MySQL, MongoDB, SQL Server, Git/Github.
- **Web and Mobile App Development:** Developed web applications in React/NodeJS and Ruby on Rails for professional use (e.g. Live Monitoring, Project Location Database with map based frontend, Barrier height estimation tool, City of Calgary AVPA map with geocoder and logarithmic ruler, and Residential Lease Agreement). Experienced in iOS and Android application development.
- **Embedded Systems – Hardware & Software design/development:** Familiar with designing schematics and PCBs (ORCAD Layout Plus, PSpice, Proteus), developing firmware for various modules, and developing applications in multi-threaded environment.
- **Project Management:** Experienced in Agile Software Process and SCRUM framework.
- **Additional Software Knowledge:** AutoCAD, FPGA Logic Analyzer, PLC/HMI Programming: WPLSoft (Delta PLC), RSLogix (Allen Bradley), Automation Studio, MATLAB, SIMULINK, MS Office (Word, Excel, Outlook, Access, Powerpoint, Project, Visio).

PROFESSIONAL EXPERIENCE

Acoustic Consultant & Web/Desktop Application Developer   **Oct. 2014 - Present**
Patching Associates Acoustical Engineering Ltd.   *Calgary, AB, Canada*

- Developed and managed several sophisticated and interactive web applications in React and NodeJS for improved client experience, utility and marketing purposes. Obtained hands-on working experience with AWS services, Docker and Microsoft Common Data Services.
- Automated company's field measurement process by designing a mobile app in Fulcrum (platform), and created a desktop interface using Python and JavaScript to automate data downloading and post-processing.
- Worked as a Technical Lead in 200+ projects involving 2D/3D acoustical modeling of energy facilities and transportation corridors, interior acoustic assessment and noise control engineering using proprietary industrial software (CadnaA, Soundplan, Odeon, AutoCad, Insul etc.).
- Experienced in detailed assessment of acoustic properties (Reverberation Time, Clarity, Speech Transmission Index, Noise Intrusion etc.) of different interior spaces, such as classroom, church, meeting/conference room, residential unit, open plan office area etc.
- Developed maintenance standards, automated technical templates, Excel and AutoCAD VBA macros, and standard operating procedures (S.O.P.) for the company.

Research and Teaching Assistant   **Jan. 2012 - Apr. 2014**
University of Calgary, Department of ECE   *Calgary, AB, Canada*

- Conducted research on development and reliable implementation of advanced digital signal processing algorithms in solving sparsity problems associated with medical imaging and telecommunication applications.
- Developed processes on noise cancellation for spatio-temporal data series. Gained experience in hum noise control.
- Acquired experience on testing and calibration of electrical equipment and embedded systems (utilized MATLAB/SIMULINK/ C++/Java/Microcontrollers for analysis, simulation and implementation).
- Delivered interactive podium presentations in prestigious conferences on Wireless Communication (WCNC, Turkey), 2014, Magnetic Resonance Imaging (ISMRM, USA) and Biomedical Engineering (BME, Canada), 2013.
- Instructed laboratory sessions (Assembly Language in Linux environment, and C++ in Windows environment) to groups of 50+ undergraduate students, conducted tutorial classes, performed student mentoring and marked exam sheets.

iOS Software Developer (Intern)   **Jun. 2013 - Dec. 2013**
Appcolony   *Calgary, AB, Canada*

- Developed/ tested iOS app frontends, fixed bugs, got familiarized with production environment and Git/Github.
- Got experienced with Canadian working environment and shared innovative project ideas to the company.

Instructor & Faculty Member   **Jan. 2010 - Aug. 2010**
Presidency University, Department of ECE   *Bangladesh*

- Delivered lectures to group of 40+ undergraduate students, instructed laboratory sessions, prepared exam questions, and supervised undergraduate theses.
- Developed leadership skills by organizing cultural events and mentoring in the university science club.

CERTIFICATION

Full Stack Web Development   **Nov. 2020 - May 2021 (expected)**
University of Toronto, ON, Canada

Machine Learning   **May 2020 - Sept. 2020**
Cornell University, USA

EDUCATION

Master of Science in Electrical & Computer Engineering   **Jan. 2012 - Jan. 2014**
University of Calgary, AB, Canada

- CGPA: 3.93/4.0
- Awards: NSERC Create I3T Scholarship (2013-2014), APR Excellence Award (2014), Graduate Admittance Scholarship (2012)

Master of Science in Electrical & Electronic Engineering (Unaccredited)   **Jan. 2010 - Aug. 2011**
Aalborg University, Denmark (Thesis), BUET, Dhaka, Bangladesh (Course)

- CGPA: 3.83/4.00
- Award: Erasmus Mundus Graduate Scholarship (2010).

Bachelor of Science in Electrical & Electronic Engineering   **Dec. 2004 - Oct. 2009**
Bangladesh University of Engineering & Technology (BUET), Dhaka, Bangladesh

- CGPA: 3.88/4.00 (Merit position: **7th** with Honors)
- Awards: University Merit Scholarship, Dean's List Award for all academic years.

ACADEMIC PROJECTS

- **Library Management System:** Level: Undergraduate project, Language used: C++.
- **Universal Program Downloader for AVR micro-controllers:** PCB Implementation of a universal program downloader compatible for both 8-bit and 32-bit AVR micro-controllers.
- Design of an interactive micro-controller driven lift, Language used: C.
- **Digital Thermometer:** Micro-controller based digital thermometer design having four types of scale reading (Degree Centigrade, Degree Kelvin, Degree Fahrenheit and Degree Rankin), Language used: C.

LEADERSHIP AND VOLUNTEER EXPERIENCE

Vice President (Finance) and Advisor **2012 - 2014, 2018-2019**
Bangladesh Students' Association at University of Calgary *Calgary, AB, Canada*

- Planned and organized sports, cultural programs, picnics freshers' reception and fund raising activities.
- Directed the International Mother Language Day celebration event in the University of Calgary.

Volunteer **2012 - 2013**
Alliance for Progress Worldwide (APW),Calgary Branch *Calgary, AB, Canada*

- Volunteered in fund raising activities to support public education in developing countries.

Volunteer **2015 - 2016**
Calgary Drop-in and Rehab Center *Calgary, AB, Canada*

- Volunteered in serving lunch to assist the rehab center in helping homeless people.

PUBLICATIONS Published **12 papers** in different well known *IEEE* sponsored conferences
AFFILIATIONS - Registered as a P.Eng. with APEGA
  - Member of International Society for Magnetic Resonance in Medicine (ISMRM)
  - Member of Association of Bangladeshi Engineers Alberta Canada (ABEAC)
REFERENCE Available upon request