

Mir Al-Masud

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Work Authorization: Permanent Resident(US Green Card).

Experience

February 2022 -Present : International TechneGroup Inc. ,Milford,OH
PLM Data Migration Consultant

- Establish PLM and CAD data migration plan
- Lead development projects and testing of migration scripts
- Data conversion, ETL of data from source into Target environment.

April 2013 - December 2022 : Siemens Industry Software,Milford,OH
Senior Software Engineer (Simcenter 3D,FE Solver support)

- Design, develop, test, deploy, maintain, and improve Simcenter Nastran FE software build environment , workflow monitoring using dashboards and platforms including Jira, Confluence, Perforce and in-house tools.
- Develop and maintain backend system services - distributed systems, real time dashboards and web applications, databases etc.
- Facilitate and maintain Serial, Shared and Distributed memory environments.

December 2010 - February 2013: Louisiana Tech University,Ruston, LA
Graduate Research Assistant

- Ansys Parametric Design Language scripting to parameterize and automate FE simulations.
- 3D solid modeling using CAD software.
- Analyzing, data wrangling and preparing reports based on research findings.

Education

January 2022- present

University of Kentucky, Lexington,KY- MS in Data Science

September 2010- May 2013

Louisiana Tech University, Ruston,LA- MS in Engineering (Mechanical)

March 2004- May 2009

Bangladesh Univ of Engg. and Tech , Dhaka,Bangladesh- **BS** in Mech. Engineering.

Technical Skills

- **Finite Element Method:**Experience in supporting development of finite element software, writing Test cases.
- **Computational Geometry:** openGL,openCV,VTK,CGAL.
- **Programming Expertise:** in Python, C and C++.

- **Build Management Tools:** GNU Make, and Microsoft Visual Studio, Intel oneAPI toolkit (HPC), and developing appropriate wrapper tools.
- Root cause analysis of performance and regression on solution sequences of nastran simulations.
- Expertise of Distributed and Shared Memory Parallel programming using Intel MPI and Python multiprocessing/threading libraries.
- Detailed understanding of Linux and Windows operating systems.
- Issue management using Jira.
- Full Stack Software Development with Python and Perl with HTML,PHP, JavaScript, Bootstrap on frontend, SQL,Redis,JSON,XML,CSV as data store.
- Scripting in perl, bash,sed awk and batch commands in windows.
- Managing task queue in a distributed system using Celery API and RabbitMQ as message broker.
- Software prototyping using UML.
- Understanding of network/file transfer protocols like udp,tcp,ssh,rdp,ftp,scp etc.
- Familiar with Siemens PLM software products such as Teamcenter.
- Developing wrapper tools around version control systems like Clearcase, Perforce, Git.
- Familiarity with Big Data programming platforms and tools like Hadoop, Mapreduce, Apache Spark.
- Expertise in Data Analysis and Visualization using pandas,numpy,matplotlib, plotly, chart.js etc.
- Desktop GUI development using Qt, TCL/Tk.
- Experience with complex CAD models using Autocad,Catia,NX-CAD,Femap.
- Microsoft Office applications.

Other Skills

- Quick Learning ability of new languages,tools and environments.
- Ability to manage multiple tasks with minimal supervision.
- Problem solving skills in Solid and Fluid Mechanics, Physics and Mathematics.
- Leading a small team of interns and developers.
- Fluent in English,Bangla,Hindi and Elementary ability in German,Arabic,Spanish.

Awards

Received Siemens YouAnswered Award in 2021

Workshops and Specializations

- Google Project Management,Deep Learning Specialization in Coursera,Becoming a Product Manager Learning Path in LinkedInLearning and more.