Md Maruf Hussain

Doctor of Philosophy in Computer Science

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JOB EXPERIENCE

The Daily Janakantha

Dhaka, Bangladesh

May 2009 - September 2013

Sr. Engineer (DGM)

- National top daily newspaper in Bangladesh: Responsible for all technical and software areas of the daily national newspaper "The Daily Janakantha" e.g.
 - Printing quality management, newspaper layout design, websites & apps design, network design, network security, networking (TCP/IP, LAN/WAN, DHCP, DNS, routing, switching and firewalls etc.).
 - Computer maintenance (mac, Microsoft Windows 7/8/10/windows server/mail server/ linux server, Microsoft office family, android/iOS, Office 365, anti-virus/anti-malware, hardware troubleshooting etc.).
 - Experience on printing and pre-printing press machinery, CTP; responsible for daily national newspaper clock wise publications and distributions.
 - In charge of newspaper social media, online newspaper, and also department management.
 - Responsible for nationally and internationally commercial correspondence, media technical correspondence (national media likes TV channels, BSS etc. & international media like AFP, reuters etc.).
 - In charge in group of company telephone exchange system (PABX), CCTV & attendance system security, experience on construction designing software and plotter printers.
- Fully responsible for IT department at mother company Globe Janakantha Shilpa Paribar Limited and her sister concerns. I started my job as a Jr. Engineer (MGR) in IT department since May 19, 2009. Appointed as a Engineer (AGM) at the same department after one year. In January, 2013, I was promoted as a Sr. Engineer(DGM) and was responsible for both IT and printing press in the same company.

IDS BangladeshDhaka, BangladeshExecutive, IT SupportJuly 2008 – April, 2009

• Internet service provider (ISP): Maintaining Windows and Linux server, mail server, Wireless, Optical fiber and ADSL Links while working in IDS Bangladesh. And also provide internet Connection, maintain Internet Security, troubleshooting any hardware, software and networking problem to user side.

Eastern University
Dhaka, Bangladesh
Executive (Part-time)
January 2003 - May 2007

• Data base manager: I worked as a data base manager at Eastern University student management software.

SKILLS

Parallel computing platform: CUDA

Multi-paradigm Language: Python, Matlab, Javascript

 $\textbf{Deep learning toolkit} \hbox{:} \ \textbf{TensorFlow, Keras}$

Tools: Jupyter, Bootstrap, HTML, CSS, .NET, Visual Studio.

Newspaper tool: QuarkXPress

Structured Programming Language: C Object Oriented Language: : C++, Java Functional Programming Language: R Databases: Anaconda, Oracle, MySQL

Visualization tools: Django, Adobe Photoshop, Adobe Illustrator.

INTERNSHIP

Horiba Ltd.

Kyoto, Japan

Research Intern Novemb

November 2019 – January, 2020

• Tasks: Memory optimized cuda implementations of Jetson nano for measurement equipment device in Linux platform.

PROJECTS

- Reporting & Alert system using Voice Call Technology for Disaster Management: Ascertain the usability analysis of voice calls based alert & reporting system for disaster management system in Bangladesh and which was based on native language (local language).
- Inventory Management System of Penguin Computer Accessories: Developed an inventory management software which was a software system for tracking inventory levels, orders, sales and deliveries. It also used in the manufacturing industry to create a work order, bill of materials and other production-related documents.
- Micro-credit Management System: I developed a Micro-credit Management software of the non-government voluntary development organization SUROVI which is manage credit and loans for very small amounts, to low income communities.

EDUCATION

Osaka Prefecture University

Osaka, Japan

Doctor of Philosophy in Science, Department of Mathematics & Information Sciences;

June 2020

Relevant Research work: Swarm intelligence, GPU-based single, multi objective and many objective particle swarm optimization,

General-purpose computing on graphics processing units (GPGPU), Smart City, Deep learning.

Advisor: : Noriyuki Fujimoto Osaka Prefecture University

Osaka, Japan

Master of Science in Mathematics and Information Sciences;

April 2015 - March 2017

Thesis: A CUDA Implementation of the Standard Particle Swarm Optimization

Relevant Coursework: Machine Learning, Neural network, Database Systems, Advanced education of entrepreneurship and innovation, Data Mining, Statistical Analysis, Theory of computation, Advanced mathematical logic, Knowledge Science etc.

Advisor: Noriyuki Fujimoto Osaka Prefecture University

Osaka, Japan

Research Student in Mathematics and Information Sciences;

October 2013 - March 2015

Relevant Research work: Swarm intelligence, General-purpose computing on graphics processing units (GPGPU)

Advisor: Noriyuki Fujimoto

Eastern University Bachelor of Science in Computer Science & Engineering Dhaka, Bangladesh

June 2004 - August 2008

Project: Inventory Management System of Penguin Computer Accessories

• Collage Merit Scholarship: Rayermahal College, Khulna, Bangladesh.

Relevant Coursework: Computer Network, Obj. Oriented System Analysis and design, Design and Analysis Algorithms, Database Management Systems, Data Communication, Software Engineering, Computer Architecture and Organization, Theory of Computation, Data Structures, Microprocessor and Assembly language programming etc.

Advisor: Mitra Kabir **PUBLICATIONS**

M M Hussain, N Fujimoto: GPU based Parallel Multi-objective Particle Swarm Optimization for Large Swarm and High Dimensional Problems ,Journal: Elsevier,Parallel Computing. (2020)

M M Hussain, H. Hattori, N Fujimoto: An Implementation of the Standard Particle Swarm Optimization on the CUDA Architecture, Journal: Springer, Swarm Intelligence, Impact Factor 2.20

M M Hussain, N Fujimoto: Effect of the Pseudorandom Number Generators on the Standard Particle Swarm Optimization on a GPU, IEEE Computer Society Conference Publishing Services. (2018)

M M Hussain, N Fujimoto: Parallel Multi-objective Particle Swarm Optimization for Large Swarm and High Dimensional Problems, IEEE Congress on Evolutionary Computation (CEC) DOI: 10.1109/CEC.2018.8477848 (2018)

M M Hussain, H. Hattori, N Fujimoto: A CUDA Implementation of the Standard Particle Swarm Optimization, IEEE Computer Society Conference Publishing Services DOI: 10.1109/SYNASC.2016.043 (2016)

CONFERENCE PRESENTATIONS

- Title: Effect of the Pseudorandom Number Generators on the Standard Particle Swarm Optimization on a GPU. Venue: International Conference on Computational Science and Computational Intelligence (CSCI'18) Las Vegas, USA.
- Title: Parallel Multi-objective Particle Swarm Optimization for Large Swarm and High Dimensional Problems. Venue: IEEE World Congress on Computational Intelligence (IEEE WCCI), Rio de Janeiro, Brazil.
- Title: A CUDA Implementation of the Standard Particle Swarm Optimization Venue: 18th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC), Timisoara, Romania.

SCHOLARSHIPS

• Japanese Government Scholar: Monbukagakusho: MEXT Scholarship, Japan. Programs: Doctor of Philosophy in Science, Master of Science and Research Studentship, Department of Mathematics & Information Sciences, Osaka Prefecture University, Osaka, Japan .

October 2013 - March 2020

January 2001 - September 2002

REFERENCES:

Noriyuki Fujimoto,

Professor,

Department of Computer Science & Intelligent Systems, Division of Electrical Engineering & Information Science, Osaka Prefecture University, 1-1 Gakuen-cho, Naka-ku, Sakai, Osaka 599-8531, Japan

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Dr. Mitra Kabir,

Postdoctoral Researcher, Faculty of Biology, Medicine and Health University of Manchester, UK. Former Assistant Professor. Department of Computer Science & Engineering (CSE), University of Dhaka, Dhaka, Bangladesh ⊠ mitrakabir@gmail.com

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