Md Ashaduzzaman Rubel Mondol

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Education

Ph.D. in Computer Science   **2019 - Present**
The University of Texas at Arlington

B.Sc. in Electrical and Telecommunication Engineering   **2008 - 2012**
The Southeast University, Bangladesh
CGPA- 4.0 on scale of 4.0

Research Experience

Human Data Interaction Lab (HDILab), UTA   **2019 - Present**
Advisor: Dr. Deokgun Park

Building a Simulated 3D environment with Unity 3D for Developmental Robotics. The environment provides the necessary experiences a human baby goes through during fetus to 12 months of age. It also provides a mother character acting as a social partner. To evaluate the learning agent, it provides different experiments from Developmental Psychology.

Work Experience

University of Texas at Arlington   **2019 - Present**
Working as Graduate Teaching Assistant for Data Mining

Samsung R&D Institute Bangladesh   **2012 - 2019**
Designation: Staff Engineer
Worked as Project Leader of Social Platform for iOS since 2018.

Projects:

- Samsung Social Platform for iOS
  A cross-platform, multi-device experience SNS platform for iOS.
  - Project and team management, Software design, architectural implementation and feature development, R&D on new ideas, collaborating with overseas teams (Onshore, offshore)

- Samsung Account iOS SDK
  Samsung account SDK has been developed to be used by other apps for accessing Samsung Account Server
  - Worked with the implementation of server-client architecture, and security improvements.

- Smart things (Samsung Connect)
  IoT based application to control and monitor IoT enabled devices through iotivity framework developed first for Galaxy S8 in Android Platform.
  - Worked on content streaming over DLNA using AllShare library
  - Development, optimization and security enhancement of Plugin platform.

- Bitmap Engine (Artecture)
  Bitmap engine is a bitmap based 2D drawing engine which is used to develop canvas-based drawing/art application. The Artecture app is available in playstorte.
  - Worked on Core engine and SDK design and development. Developed different drawing tool algorithms using Lattice Boltzmann Fluid simulation, Bezier curve path generation, GP-GPU programming with OpenGL, OpenCL, Kubelka-Munk Color-Mixing algorithms.
  - Complex UI design and developments in Android Platform
  - As part of this project I also developed a *VR based drawing canvas* with real-time drawing functionalities.

- ▪ MEA Android commercialization
  Commercialization of different android models including Galaxy S4, S5, Note 4, Note 5 models.
  - – Worked on optimization, feature developments, localization and issue fixing of Android OS for Samsung devices.

Sentinel Solutions Ltd   **2011 - 2012**

Designation: Software Engineer
Worked as android application developer which involved implementation of mobile applications including server-client architecture

Projects:
- ▪ Rugby revamp
  This project involved development of Rugby tournament updates, fixtures etc. features based on server data.

Publication

SEDRo: A Simulated Environment for Developmental Robotics
- ▪ Pothula, M. A. Rubel Mondol, S. Narasimhan, S. M. Islam and D. Park
- ▪ 2020 Joint IEEE 10th International Conference on Development and Learning and Epigenetic Robotics (ICDL-EpiRob)

Modeling Social Interaction for Baby in Simulated Environment for Developmental Robotics
- ▪ Md Ashaduzzaman Rubel Mondol, Aishwarya Pothula, Deokgun Park
- ▪ Presented at BabyMinds, NuerIPS 2020 workshop

Collaborative drawing method and electronic device therefor
- ▪ Md Shamsul Arifin Mozumder, Sifat Afroj Moon, Jewel Nandy, Md Ashaduzzaman Rubel Mondol, Samsad Ul Islam
- ▪ *https://patents.google.com/patent/US20170123648A1/en*

Honors and Awards

- ● Achieved **Chancellor Gold medal** award
  - · For securing the highest result among all Bachelor students passing in 2012
- ● Received **Best Code Reviewer of the month** for months Jan-Mar, 2018 from Samsung R&D Institute Bangladesh
- ● Received **Icon of the month** award 3 times for June 2013, September 2014 and November 2017 from Samsung R&D Institute
- ● Achieved **Professional level** on Algorithmic Problem solving Test in Samsung R&D Institute Bangladesh
- ● **Runners up** in Code warriors challenge in 2012
  - · For developing mobile solution according to requirement within deadline
- ● Secured good positions in multiple ACM problem solving contests among around 100+ teams
  - · 5th position in *National Collegiate Programming Contest* 2010
  - · 15th position in *International Collegiate Programming Contest*, Dhaka Regional, 2010

Open Source Contribution

- ● Developed and open sourced my research project SEDRo. It's publicly available at: *https://github.com/utaresearch/SEDRo*
  - · Details about this project can be found at: *https://anur0n.github.io/sedro-website/*

Skills

- ● Mobile OS and other platforms: Android, iOS application and Unity 3D game development
- ● Machine Learning libraries: TensorFlow, Keras
- ● Languages: Java, C/C++, Python, R, Objective C, Swift, C#, SQL
- ● Libraries: OpenGL, OpenCL, Skia, LibGDX, GearVR Framework