Pallab Mahmud
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Education

M.Sc. in Computer and Information Science, CGPA 3.70 out of 4 *June 2016*
University of Oregon, Eugene, Oregon.

B.Sc. in Computer Science and Engineering, CGPA 3.51 out of 4 *January 2011*
North South University, Dhaka, Bangladesh.

Technical Skills

Languages: JavaScript, Java, Python , C, C++, Shell Scripting, PHP, OCaml.

Frameworks: NodeJS, AngularJS, Express, MEAN stack

Revision Control: Git, Perforce, Subversion **Databases**: MongoDB, MySQL, Oracle Server, SQLite

Platform: Unix, OS-X, Windows, Android.

Development Boards: Raspberry PI, Arduino, Atmel ATmega boards**.**

Tools: Atom, Vim, Sublime, Web Storm, IntelliJ Idea, Eclipse, Netbeans, MS Visual Studio .NET, Android Studio.

Work Experiences

Software Engineering Intern *June 15 – Septermber 04*
CDK Global, Portland, Oregon**.**
- Worked in CDK insight portal using **NodeJS** and **AngularJS, D3, C3 and AngularChart**
- Developed a mark-down based inter-company API documentation portal using **NodeJS** and **AngularJS**
- Organized a workshop on modern full-stack web development [*http://bit.ly/1esakfc*]

Graduate Teaching Fellow (Full Stack JS Developer), *September 14– June 14, September 15 - Present*
Innovation and Partnership Services, University of Oregon, Eugene, Oregon**.**
- Developed a web portal to facilitate the patents and license management of UO using **NodeJS, AngularJS, MongoDB, and Express.**
- Improved user interface and user interaction for the IPS affiliated sites.

Software Engineer, Samsung R&D Institute, Dhaka, Bangladesh**:** *Dec. 2011 – Aug 2013*
- One of the primary developers of two in-house debugging tools, **Android Dumpstate Analyzer** and **AndroidLive**. Used Java, threads, Swing/AWT, graphics2d, jfreechart and Perforce.
- Implemented three modules of **Android Dumpstate Analyzer** that transforms android system dumpstate's CPU suspend/wakeup, wakelocks, partial wakelocks, alarm, low of memory killer events, processes and interrupts into graphical and tabular format to ease debug process.
- Designed the core architecture and implemented three modules of **Android Live,** a real-time tool to monitor the processes, events, system calls, and resource usage of a connected Android device.
- Our team was awarded **Iconic of the month** for August 2012 for our contribution
- Excelled in two software engineering competence test each year, went through 2 month long Android development training twice and conducted 12 workshops for new recruits.

Lab Instructor and Teaching Assistant, North South University, Dhaka, Bangladesh: *Jan. 2011 – Aug 2011*
- Assisted faculty members with grading, proctoring and teaching Microcomputer Systems, Database Systems & Computer Networks course.

Noteworthy Project Experiences:

Audio2DO: Auditory Todo list application — Graduate Scenario Based UI course project

- Developed in **Python** using **PyGame** and **PyAudio.** Carefully maintained all the steps of scenario based design process – activity design, information design, interaction design, prototyping and user evaluation.

Face Recognition Algorithm Analysis — UG Final Year Project

- Developed using **Matlab** to analyze performance of Principal Component Analysis (PCA), Local Binary Pattern (LBP), Support Vector Machine, and Linear Discriminant Analysis (LDA) algorithm under noise, orientation, lighting and different facial expression constraints.

Ankur: Bangla Online OCR — UG Fuzzy Logic Course Project

- Bangla online optical character recognizer, implemented in **Java** using fuzzy logic.
- Mahmud, P., Rahman, M. R., Islam, M. J., Rahman, M. R., Matin, M. A. (2014, November). Ankur: Bangla Online Character Recognition. Paper presented at The 5th Brunei International Conference on Engineering and Technology 2014, Jerudong, Negara Brunei Darussalam. [*http://dx.doi.org/10.1049/cp.2014.1116*]

Augmented and Virtual Reality Based Interface Evaluation — UG Collaboration, UNottingham

- Evaluated usability of surgery training interfaces that are based on augmented and virtual reality
- Ataur Rahman Chowdhury, Pallab Mahmud, Shadab Mashuk , 'Augmented and Virtual Reality based approaches in Minimally Invasive Surgery training', *Informatics, Electronics & Vision (ICIEV)*, Dhaka, May 2013

Locomotive robot — UG Microcomputer Systems Course Project

- Implemented using **ATmega 16** microcontroller with line following and edge detection capabilities.

Click House Manager — UG Database Project

- Performed requirements studies, designed relational database with ER diagram and schema for a database management software for a graphics studio and implemented it using **Oracle server** as backend and **C#** for frontend

Travel BD — UG Web Dev. Project

- Implemented a prototype of a tourism website with geo-routing feature. Used **PHP, CSS, JQuery, MySQL, Flash, and Google geo-coding** for the web development course project.

Chatterbot Alisa — UG OOP Course Project

- Implemented a chatterbot in **Java** with basic responses based on the input questions/statement featuring a GIF based character animations.

Graduate Courses Taken (September 2014-Present)

- Structures of Programming Languages
- Applied Data Analysis
- Scenario Based UI Design (Usability Engineering)
- Human Performances (Engineering Psychology)
- Computer Architecture
- Algorithm and Complexity
- Automata Theory
- Distributed Systems
- Cognitive Modeling