

Research Interest

Computer Vision, Augmented Reality, Serious Games

Education

Khulna University of Engineering & Technology

B.Sc in Computer Science and Engineering

CGPA: 3.06/4.00 (CGPA of last 2 years : 3.32)

Khulna, Bangladesh

April, 2014-March, 2018

Research Experience

A Study on Salient Region Detection Using Boundary and Color Cue

- This thesis work proposes a technique that detects and extracts the visually salient region from images.
- It generates superpixels followed by a global contrast map, a boundary aware contrast map, and a color map to build the visual saliency map.

Professional Experience

Senior Software Engineer

Sigma Solutions, Dhaka, Bangladesh

March, 2019 - Present

- Developed tools to automate radio and core parts of the telecommunication system for leading telecommunication companies in Bangladesh.
- Developed and worked as a maintainer for multiple packages (robi-equipment-inventory, laravel-mysql-partition, sigma-db-helper, sigma-package-linker, sigma-table, sigma-sheets).
- Refactored codebase and Developed modules for a leading stock photo market to fulfill business requirements.

Software Engineer

Hyper Systems Ltd., Dhaka, Bangladesh

May, 2018 - February, 2019

- Worked in Collaboration with the product design team to build operations management and customer care modules with laravel and vuejs.
- Improved overall product performance by minimizing refuel event errors.

Projects

- **Tower Touch.** An application which performs a thorough real time status checking of ericsson and huawei telecom tower sites. It reduces human efforts by 90%.
 - Designed architecture in collaboration with another team member. Lead a team of 3 members to develop modules regarding concurrency, real time progress update and command response parsing rules.

Technologies: *Laravel, Livewire, Python, FastApi*

- **Pixmama.** Pixmama is the largest stock photo platform in bangladesh. Here professional-grade photographs are bought and sold for a range of purposes, sizes and licenses.
 - Implemented APIs, payment gateway, designed ui, and restructured frontend modules.

Technologies: *Laravel, AngularJs, JQuery, Mysql, Elasticsearch*

- **myRADAR.** myRADAR is a leading GPS based vehicle tracking system which includes features like live tracking, trip history, destination alert, remote engine lock unlock, fuel monitor.
 - Increased refuel detection event efficiency by 50%. Performed R&D to improve data communication technique between IOT devices and server. It reduced packet size by 70%.

Technologies: *Laravel, MySQL, JQuery, Vanilla js, vue.js*

- **DNA Protein Sequence Visualizer.** A visualizer of DNA and Protein sequence to help physicians find the hot spot by comparing the sequence of a cancer patient with a healthy person.

Technologies: *D3.js, Vanilla js*

- **Automated user management system.** A tool to automate a ui based user management system for Robi, second largest telecom service provider in Bangladesh.
→ Designed architecture and Lead a team of 4 members to develop and ensure on time product delivery.
Technologies: Laravel, php-webdriver
- **weecare.life.** A VoIP based healthcare service. It provides smart communication to the patients by healthcare organizations using automated scheduled recorded voice calls.
→ Implemented sound server and admin dashboard.
Technologies: Laravel, Python, Node.js, Asterisk, SQLAlchemy
- **Smart Construction.** Worked on SmartConstruction, an End to End Solution for construction farms to track inventory items, expenditure and work progress.
→ Designed database architecture and developed inventory module
Technologies: Laravel, MySQL, JQuery

Language Proficiency

- **English.** Fluent (IELTS Scores: **Overall: 8**; Speaking: 7, Listening: 8.5, Writing: 6.5, Reading: 9)
- **Bengali.** Native

Skills

- **PHP, JavaScript,** Python, C, C++, HTML, CSS, SQL.
- Frameworks: **Laravel**, Vue.js, jQuery, FastApi, Flask, **PHPUnit**.
- DBMS: **MySQL**, SQLite, MongoDB
- Tools: Git, redis, IntelliJ, Vim, Jira, Clickup.
- Libraries: **OpenCV, OpenGL**, D3.js.
- Solved **400+** problems on different online judges.

Additional Experience

- **Mentor**, National High School Programming Contest (NHSPC) (2016, 2017) Khulna.
- **Mentor**, SGIPC (Standard group of interested in programming contests).
- **Program coordinator**, Workshop on “University-Industry Collaboration: Challenges and Opportunities 2017”.
- **Cocreator**, **Ngx light color picker**, an open source lightweight color picker package built with angularjs.

References

- **Dr. Sk. Mohammad Masudul Ahsan**
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