Oyesh Mann Singh

LinkedIn:http://www.linkedin.com/in/oyeshsingh
Phone:(409)600-5899 | **Email**:oyeshsin@hotmail.com | **Website**:https://github.com/oya163

Education

University of Maryland - Baltimore County, MD	Aug 2017 - Dec 2021 (expected)
PhD in Computer Science	

Lamar University, Beaumont, TX	May 2017
Masters in Computer Science	GPA-3.91/4

Kathmandu Engineering College, Nepal	Nov 2011
Bachelors of Engineering in Electronics and Communication	GPA-70.11/100

Professional Experience

Teaching Assistant
Department of Computer Science, UMBC, MD   **Aug 2017 - present**

- Assisting undergraduate students in better understanding their assignments/projects and debugging their codes for CMSC 341 Data Structure and CMSC 441 Computer Architecture course

Software Developer
Department of Chemical Engineering, Lamar University, TX   **Mar 2015 - May 2017**

- Enhanced Chemical Analyzer Barometer(CAB) software by using auto-thresholding technique of Otsu's method and altering kernel size of Canny edge detector using OpenCV/Java
- Increased the accuracy of calculation of angles, volume, height, width of water droplet by adding upper margin cut-off line using graphical properties of Java
- Improved the usability of Excel Merge Utility software by adding more GUI features and making it easier for PhD students to analyze the data after merging the required parameters from CSV files

Associate Software Developer
Software Paradigm Infotech, Kathmandu, Nepal   **Jan 2013 - Dec 2014**

- Analyzed the business logic by gathering the requirements from on-site client in order to modify the existing code in Credit Management System (CMS) and Reservation & Delivery System (RDS) projects
- Coordinated with team members, team leads, on-site and offshore managers to complete a given task using Software Development Life Cycle process, which created a smooth and systematic flow of projects
- Successfully completed CMS and RDS projects using CMMI level 5 (Capability Maturity Model Integration) model with strong appreciations from on-site and offshore managers

Projects

- **eatIn** https://github.com/oya163/eatIn   **Oct 2017**
  Worked in a team of three to develop an web app project "eatIn" based on Uber concept but for kitchen. Successfully demoed in UMBC Hackathon.
- **Unsupervised Learning using JigsawPuzzle as pretext task**   **Sep 2017**
  https://github.com/oya163/oyaTorch/tree/master/JigsawPuzzle
  Currently working in PyTorch to implement unsupervised learning algorithm where jigsawpuzzle is pretext task. The learned model will be used eventually in medical image classification, detection and segmentation tasks.
- **Brain Tumor Segmentation Using Deep Learning Technique**   **Mar 2016**
  http://oyeshsingh.blogspot.com/
  Successfully completed my thesis on segmentation and extraction of tumor patches by training the convolutional neural network using MatConvNet toolbox.
- **DataStructure_CPP** https://github.com/oya163/DataStructure_Cpp   **Dec 2016**
  Independently learned all the fundamentals of data structure and algorithms from the book "Programming Abstractions in C++."
- **NoticeBoard** https://github.com/oya163/NoticeBoard   **Jul 2016**
  Self-initiated C++/Qt/SQL/Linux project that minimizes communication gap between co-workers in an hourly-wage environment.

- **Storm** https://github.com/VrajPandya/storm   **Feb 2016**
  Led three members to develop a P2P file sharing project using libtorrent/boost libraries in C++/Qt/Linux for Advance Operating System coursework.
- **SplitBill** https://github.com/oya163/SplitBill   **Jun 2015**
  Developed a web application using C#/MVC which calculates and generates a monthly report of expenses of rent, groceries and utilities among roommates.
- **ShapeCount**   **Mar 2015**
  Led a two-member C++/OpenCV project that counts various geometrical shapes via webcam, for Artificial Intelligence coursework.

Volunteer Experience

Volunteer
UMBC Hackathon 2017, UMBC, MD   **Oct 2017**

- Helped in organizing and distributing foods to the hackathon participants of Major League Hacking HACKUMBC Fall 2017.

Camp Counselor
Summer Science Camp, Lamar University, TX   **Jun 2017**

- Volunteered in Robotics sessions for girls and boys from South East Texas schools, which was a major competition for kids in ExxonMobil Bernard Harris Summer Science Camp.
- Guided kids in building LEGO Mindstorm NXT robot by assisting in hardware/software stuffs in order to increase their predilection towards electronics and programming realm.
- Learned about dealing with kids in US through Child Protection Enactment crash-course.
- Supervision and guidance was under the direction of Dr. Otilia Urbina, Lamar University.

Volunteer
South East Texas Food Bank, Beaumont, TX   **Mar 2015**

- Sorted the food products discarded by retail markets so that it could be easily distributed to the poverty-stricken families in Beaumont city.

Member
Nepal Red Cross Society, Kathmandu, Nepal   **Aug 2014 - Dec 2014**

- Volunteered in different events and festivals in Kathmandu Valley with rigorous training on first-aid, disaster relief and crowd management.

Visiting Counselor
Microsoft Innovation Center Nepal, Kathmandu, Nepal   **Jun 2014 - Jul 2014**

- Organized a seminar to school children in remote areas under the program of "Code.org" conducted by Microsoft-Nepal, in order to build their interests in software and making them understand the importance of software in their daily lives.

Technical Skills

- **Programming Languages** - C++, Python, PyTorch, Java, MATLAB, SQL
- **Others** - pandas, Qt, Git, OpenCV, Arduino, libtorrent, LaTeX, Deep Learning