

# MD ABDUL BASET SARKER

<https://www.linkedin.com/in/baset-sarker/>  
chayan2005@gmail.com,+1 (315) 244-6816 | Potsdam, New York, USA

## EDUCATION

### Clarkson University, Potsdam, New York

Jan 2021- Current

PhD (4th year), Electrical and Computer Engineering (3.83 out of 4)

- Relevant Coursework: Deep Learning, Advance Deep Learning, Machine Learning, Data Mining, Big data

### Institute of Science and Technology, National University, Bangladesh

Dec 2012

Bachelors in Electronics and Communication Engineering(ECE) (3.25 out of 4)

- Relevant Coursework: C, C++, Electronic Circuit.

## SKILLS

- **Programming Languages & Miscellaneous Technologies:** Python, C, C++, PHP, JAVA, MYSQL, Oracle, Laravel, Django, APIs, Git, Bitbucket, AWS, Docker, Jenkins, Tensorflow, Pytorch, Yolo.
- **Tools:** IntelliJ IDE, Visual Studio Code, Eclipse, Raspberry Pi, Jetson Nano, Jetson Xavier, Google Coral Mini

## PROFESSIONAL EXPERIENCE

### Clarkson University, Potsdam, New York ( Research Assistant)

Jan 2021-Current

Working on Machine Vision and Artificial intelligence for example,

- Vision-enabled prosthetic hand
- Vision-enabled exoskeleton
- Underwater microplastic detection
- Biomateics: Faceware capture system

### Advance Chemical Industries Ltd, Bangladesh

#### Senior Software Engineer

Oct 2019 - Jan 2021

- Managing a team of 4 engineers handling multiple projects in different technologies, including Python, PHP, Django, Laravel, and Express.
- Created an open-street map-based solution for field management software that saved thousands of dollars for Google Maps.
- Human resource (Time attendance-based system) for factory workers. and Shrimp production management software
- Provide high-level architecture guidance, develop specifications patterns, and create strategic technical designs for small-scope projects within the team. Analyze, design, code, debug, test, and modify new software or enhancements while considering software abilities.

### PRAN-RFL Group, Bangladesh

#### Software engineer

Jul 2016 - Sep 2019

- Design, development, and troubleshooting of Applications using Python, PHP, Java and C++, Android
- Developed Production Management software for 26 factories and over 5000 products.
- A dynamic Quality Control software for 15 food factories for over 2000 products.
- Worked on an Embedded Linux (Yocto) platform for Vision TV R&D.
- Developed Android applications on Production, Quality control, and Google map-based solutions.
- Completed application development as per the requirement, scheduled activities, contributed to team meetings and handled troubleshooting development and production problems.

### Aplombtech BD (Sinpulse GmbH), Bangladesh

#### Embedded system and software engineer

Nov 2014 - Jul 2016

- Design, development, and troubleshooting of Applications C and C++
- Inventory management software
- PCB design using EagleCAD, Proteus
- Worked on Smart home solution, MQTT, Bluetooth

## AWARDS:

- (2023) Best project demonstration, Long Distance Face and Irirs Capture using AI-enabled PTZ camera, Awarded by Center for Identification Technology Research (CITeR), USA.
- (2022) Technology showcase, Vision Controlled Prosthetic Hand, Awarded by Clarkson University, USA.
- (2022) President's Challenge 2022, 1st, 2nd, 3rd for three segments for VISION CONTROLLED PROSTHETIC HAND, Awarded by Clarkson, USA.
- (2021) President's Challenge 2021, 1st for SMART THRONE in Project demonstration video, Awarded by Clarkson

University, USA.

- (2019) Employee of the month, Awarded by PRAN-RFL group, Bangladesh.

## PUBLICATIONS

### Conference:

- **M. A. Baset Sarker**, Juan Pablo Sola, Aaron Jones, Evan Laing, Ernesto S Sola, and Masudul H. Imtiaz, Vision Controlled Sensorized Prosthetic Hand, Interdisciplinary Conference on Mechanics, Computers and Electronics (ICMECE) 2022.
- E. Sola-Thomas, **M. A. Baset Sarker** and M. Imtiaz, "FPGA-Controlled AI Vision for Prosthetics hand," 2023 IEEE World AI IoT Congress (AIIoT), Seattle, WA, USA, 2023, pp. 0520-0524, doi: 10.1109/AIIoT58121.2023.10174491.
- **M A Baset Sarker**, Ernesto S Sola, Collin Jamieson, Masudul Imtiaz, Autonomous Movement of Wheelchair by Cameras and YOLOv7, 3rd International Electronic Conference on Applied Sciences, 1–15 December 2022.
- **M A Baset Sarker**, Usama Butt, Masudul Imtiaz, Abul Basar Baki, Automatic Detection of Microplastics in the Aqueous Environment, IEEE 13th Annual Computing and Communication Workshop and Conference (CCWC 2023).
- **M A Baset Sarker**, Usama Butt, Masudul Imtiaz, Abul Basar Baki, Robust Automatic Identification of Microplastics using AI-vision, A Conversation on Advances in Water Science and Technology (March 12-13, 2023).
- M. V. Caracciolo, O. Casciotti, C. D. Lloyd, E. Sola-Thomas, M. Weaver, K. Bielby, **M. A. Baset Sarker**, and M. H. Imtiaz, Autonomous Navigation System from Simultaneous Localization and Mapping, 2022 IEEE Microelectronics Design Test Symposium (MDTS).
- Garrett Stoyell, Anthony Seybolt, Thomas Griebel, Siddesh Sood, **Md Abdul Baset Sarker**, Abul Khondker, Masudul Imtiaz. The Mind-Controlled Wheelchair. 2022 ASEE St. Lawrence Section Annual Conference.
- E. Sola-Thomas, **M. A. Baser Sarker**, M. V. Caracciolo, O. Casciotti, C. D. Lloyd and M. H. Imtiaz, Design of a Low-Cost, Lightweight Smart Wheelchair, 2021 IEEE Microelectronics Design Test Symposium (MDTS), 2021, pp. 1-7.

### Journal:

- **M.A.B. Sarker**, SS. Hossain, N.G. Venkataswamy, S. Schuckers, M.H. Imtiaz, An Open-Source Face-Aware Capture System. Submitted on: Circuit and Signal Processing, MDPI, 2024.
- **MAB Sarker**, MH Imtiaz, SMM Al Mamun, "Development Of A Raspberry Pi Based Home Automation System", Bangladesh Journal of Physics, Dhaka, Bangladesh, 16, 59-66,2014.

### VOLUNTEERING:

- General Secretary (January 2013 - January 2014), Electronics and Communication Club of IST (ECEIST), Dhaka, Bangladesh.
- Join Secretary (February 2013 - February 2014), Rotaract Club of Dhaka Buriganga, Dhaka, Bangladesh.
- Member, Programming Club of IST (PcIST), Dhanmondi, Dhaka
- Founding member, Blood Donation Club of IST, Dhanmondi, Dhaka