

# Taiabur Rahman

Dijon, France

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## EDUCATIONS

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<b><u>MSc, ERASMUS+ Joint MSc in Medical Imaging &amp; Applications (MAIA)</u></b>	<i>Sep 2022 -Aug 2024</i>
<b><u>4<sup>th</sup> semester Master Thesis- Mouse Brain Segmentation using Deep Learning:</u></b>	<i>Feb 2024 -Jun 2024</i>
National Institute of Health and Medical Research (INSERM)	
Supervisor: Pr Fabrice MERIAUDEAU, Alain Lalande, Stephan Collins	
<b><u>1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> academic semester:</u></b>	
University of Burgundy (UB),France	
University of Cassino and Southern Lazio (UNICAS), Italy	
University of Girona (UdG), Spain	
<b><u>17<sup>th</sup> EXCITE Summer School on Biomedical Imaging, ETH Zurich</u></b>	<i>Sep 2023</i>
Swiss Federal Institute of Technology Zurich (ETH Zurich)	
University of Zurich, Switzerland	
<b><u>Winter School 2023</u></b>	<i>Feb 2023</i>
University of Cassino and Southern Lazio-Italy	
<b><u>MSc, Software Engineering (SE)</u></b>	<i>Sep 2018 -Aug 2020</i>
Tianjin University, School of Computer Software, China	
<b><u>BSc, Computer Science &amp; Engineering (CSE)</u></b>	<i>Oct 2010 -Feb 2014</i>
Bangladesh University (BU), Bangladesh	

## PROFESSIONAL TRAINING

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<b><u>Oracle Certified Professional (OCP)</u></b>	<i>Nov 2017</i>
IBCS-PRIMAX Software (Bangladesh) Ltd., Bangladesh	
<b><u>Professional Web Design &amp; Development</u></b>	<i>Oct 2014</i>
BASIS Institute of Technology & Management (BITM), Bangladesh	

## EMPLOYMENT HISTORY

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<b><u>Full Stack developer</u></b>	<i>Dec 2020 -Aug 2022</i>
Vision Eye Hospital, Bangladesh	
<b><u>Higher Education Research Assistant</u></b>	<i>Sep 2018 -Jan 2020</i>
Tianjin University, School of Computer Software, China	
<b><u>Web Application Developer</u></b> (Remote Job)	<i>Oct 2019 -July 2020</i>
System Bind Consulting & IT Services Inc., Canada	
<b><u>Software Engineer</u></b>	<i>Oct 2017 -Aug 2018</i>
Vision Eye Hospital, Bangladesh	
<b><u>Web Application Developer</u></b> (Remote Job)	<i>July 2016 -Jan 2017</i>
Make Good Media, Canada	
<b><u>Software Engineer</u></b>	<i>Oct 2017 -Aug 2018</i>
Apronix Ltd, Bangladesh	
<b><u>Software Engineer</u></b>	<i>Apr 2014 -July 2017</i>
Coderment Ltd, Bangladesh	

## TECHNICAL SKILLS

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**Programming Languages:** Python (Flask),MATLAB,C++,PHP (Laravel, CodeIgniter)  
**Deep Learning Tools:** PyTorch, TensorFlow, Keras  
**Web Development:** JavaScript, Vue.js/CLI, TypeScript, jQuery  
**APIs and Version Control:** RESTful API, Git, JSON  
**DevOps and Cloud Services:** Google Cloud Platform (GCP), DigitalOcean  
**Amazon Web Services (AWS):** EC2, RDS, Load Balancing, S3, Route53, CI/CD CodeDeploy, DigitalOcean  
**Web Servers:** Apache, Nginx  
**Database Management:** SQL, MySQL, SQLite

## RESEARCH PROJECTS

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- 1) **National Institute of Health and Medical Research (INSERM)**
  - a. Deep Learning-Driven Automated Segmentation of High-Resolution 3D Histological Mouse Brain volumes
- 2) **University of Girona**
  - a. Elastix-Based CT Image Registration for COPD Lung 3D volume analysis
  - b. Deep Learning Approaches for Precise 3D Segmentation of Human Brain Tissue
  - c. Automated Skin Lesion Classification: A Comprehensive Analysis of Transfer Learning and Machine Learning Techniques
  - d. Expectation-Maximization Algorithm in Brain Tissue Segmentation
  - e. Computed Aided Surgery and Medical Robotics Robot to Deliver the Surgical Instrument to Surgeon
  - f. Level Up: Revolutionizing Medical Imaging Education through Interactive e-Learning
- 3) **University of Cassino and Southern Lazio**
  - a. Automatic retinal image hard exudated segmentation using traditional method.
  - b. Alzheimer's Disease Classification Using MRIs and Gene Expression Data
  - c. Deep Learning-Based Skin Lesion Classification: A Computer-Aided Diagnostic
  - d. Regression Challenge: Using Linear Regression and KNN Model
- 4) **University of Burgundy**
  - a. Bibliography Review: Comparative study with Automated Kidney Image Segmentation Based on Traditional & Deep Learning approach.
  - b. Traffic (signal light) Simulation and Violation Alert

## RESEARCH POSTERS

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### a) National Institute of Health and Medical Research (INSERM)

Poster Session, 17th EXCITE Zurich Summer School on Biomedical Imaging, ETH Zürich, Switzerland, 2023

## INDUSTRIAL MIS (management information system) PROJECTS

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### Hospital Information Management System [Front end: Vue CLI, Backend: PHP, Laravel, Database: MySQL]

Actively using services:

- Vision Eye Hospital, Dhaka, Bangladesh
- Dristi Eye Hospital, Banasree, Bangladesh
- Dristi Eye Hospital, Kushtia, Bangladesh
- Dristi Eye Hospital, Satkhira, Bangladesh

### Franchise Store Management System [PHP, Codeigniter, MySQL, Bootstrap, jQuery, Ajax]

Actively using services:

- Chasma world private limited
- Hexagon Global Ltd

### Retail Optimization Software [PHP, Codeigniter, MySQL]

More than ten pharmacies, optical shops, and in-house stores are actively utilizing this application to enhance their operations.

### B2B Ecommerce system [PHP, Laravel, Codeigniter, MySQL, Bootstrap, jQuery, Ajax]

## CHALLENGE AND CODING CONTESTS

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<b>HACKUPC 2024-</b> The Faculty of Informatics of Barcelona (FIB) Automated brain tissue segmentation using OpenAI technologies Polytechnic University of Catalonia · Barcelona Tech – UPC	May 2024
<b>Datathon IA4care-</b> University of Burgundy, Dijon, France Automated 3D Microscopic Volume Analysis for Hippocampus Segmentation in Mouse Brain. Eseo - Grande School D'ingénieurs,	Apr 2024
<b>CT Image registration challenge-</b> University of Girona, Spain 3d volume Image registering CT lung scans of COPD patients.	Jan 2024
<b>bitsxlaMarató 2023-</b> Barcelona Supercomputing Center (BSC), Spain AI base solution for Sexual and Reproductive health Hackathon Faculty of Informatics of Barcelona (FIB),	Dec 2023
<b>Lleidahack, HackEPS 2023-</b> Polytechnic School of the University of Lleida, Spain Ultimate 24-Hour AI based Solution Hackathon	Nov 2023
<b>Quazi Azher Ali SAARC Programming Contest-</b> Bangladesh University, Bangladesh Problem solving contest using programming language.	Dec 2014

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## LANGUAGE SKILLS

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**Languages:** Bengali- Mother tongue, English – B2, Franch- A1, Italiano-A1

## SCHOLARSHIPS AND AWARDS

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<b>First Position at Lleidahack, HackEPS</b>	2023
AI-based Solution Hackathon, Polytechnic School of the University of Lleida, Spain	
<b>Aquisis International Mobility Grant</b>	2023
Provided by the Region Bourgogne France Comte, France for international educational mobility.	
<b>Tianjin Government Scholarship</b>	2018, 2019, 2020
Awarded by Tianjin Local Government, China for academic studies at Tianjin University.	

## LINKS

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<https://github.com/taiaburbd?tab=repositories> | <https://www.linkedin.com/in/taiabur-rahman/>

## REFERENCES

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### **Fabrice MERIAUDEAU**

ICMUB Laboratory,  
CNRS UMR 6302  
Professor, University of Burgundy  
[Fabrice.Meriaudeau@u-bourgogne.fr](mailto:Fabrice.Meriaudeau@u-bourgogne.fr)

### **Alain Lalande**

Professor, University of Burgundy  
Spectroscopy-NMR Department  
Children's Hospital - CHU de Dijon  
[Alain.Lalande@u-bourgogne.fr](mailto:Alain.Lalande@u-bourgogne.fr)