# **Taiabur Rahman**

# Dijon, France

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#### **EDUCATIONS**

MSc, ERASMUS+ Joint MSc in Medical Imaging & Applications (MAIA)

Sep 2022 -Aug 2024

4<sup>th</sup> semester Master Thesis- Mouse Brain Segmentation using Deep Learning:

National Institute of Health and Medical Research (INSERM)

Supervisor: Pr Fabrice MERIAUDEAU, Alain Lalande, Stephan Collins

1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> academic semester:

University of Burgundy-France, University of Cassino- Italy & University of Girona-Spain

Summer School on Biomedical Imaging EXCITE, ETH Zurich
Sep 2023

Swiss Federal Institute of Technology Zurich (ETH Zurich) & University of Zurich, Switzerland

Winter School 2023 Feb 2023

University of Cassino and Southern Lazio-Italy

MSc, Software Engineering (SE)

Sep 2018 –Aug 2020

Tianjin University, School of Computer Software, China

BSc, Computer Science & Engineering (CSE)

Oct 2010 -Feb 2014

Bangladesh University (BU), Bangladesh

# **PROFESSIONAL TRAINING**

Oracle Certified Professional (OCP)	Nov 2017
IBCS-PRIMAX Software (Bangladesh) Ltd., Bangladesh	
Professional Web Design & Development	Oct 2014
BASIS Institute of Technology & Management (BITM), Bangladesh	

#### **EMPLOYMENT HISTORY & EXPERIENCE**

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

#### **TECHNICAL SKILLS**

Programing Languages: Python, MATAB, C++, PHP

**Deep Learning**: PyTorch, Tensorflow

Web Application Tools: JavaScript, jQuery, Vue.js/CLI, RESTful API, Git, Json, XML

DevOps: GCP, AWS (EC2, RDS, Load Balancing, Auto Scaling, S3, and CI/CD CodeDeploy), DigitalOcean

<u>Web Server:</u> Apache, Nginx. <u>Databases</u>: SQL, MySQL, SQLite

### **LANGUAGE SKILLS**

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

#### **RESEARCH PROJECTS**

- Deep Learning-Driven Automated Segmentation of High-Resolution 3D Histological Mouse Brain volumes
- Elastix-Based CT Image Registration for COPD Lung Analysis
- 3D Human Brain Tissue Segmentation Using Advanced Deep Learning Techniques
- Deep Learning-Based Skin Lesion Classification: A Computer-Aided Diagnostic
- Automated Skin Lesion Classification: A Comprehensive Analysis of Transfer Learning and Machine Learning Techniques
- Classification Challenge: Alzheimer's Disease Classification Using MRIs and Gene Expression Data
- Regression Challenge: Using Linear Regression and KNN Model

- Bibliography Review: Comparative study with Automated Kidney Image Segmentation Based on Traditional & Deep Learning approach.
- Traffic (signal light) Simulation and Violation Alert

#### **INDUSTRIAL PROJECTS**

Hospital Information Management System [PHP, Laravel, Vue CLI, MySql, AWS]

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

<u>B2B Ecommerce system</u> [PHP, Laravel, Codeigniter, MySql, Bootstrap, jQuery, Ajax]

#### **CHALLENGE AND CODING CONTESTS**

HACKUPC 2024 May 2024

Automated brain tissue segmentation using OpenAl technologies. The Faculty of Informatics of Barcelona (FIB), Polytechnic University of Catalonia · Barcelona Tech – UPC

<u>Datathon IA4care</u> Apr 2024

Automated 3D Microscopic Volume Analysis for Hippocampus Segmentation in Mouse Brain. Eseo - Grande School D'ingénieurs, University of Burgundy, Dijon, France

#### CT Image registration challenge

Jan 2024

3d volume Image registering CT lung scans of COPD patients. University of Girona, Spain

bitsxlaMarató 2023 Dec 2023

Al base solution for Sexual and Reproductive health Hackathon. Faculty of Informatics of Barcelona (FIB), Barcelona Supercomputing Center (BSC), Spain

Lleidahack, HackEPS 2023 Nov 2023

Ultimate 24-Hour AI based Solution Hackathon. Polytechnic School of the University of Lleida, Spain

Classification challenge May 2023

Alzheimer's disease using MRIs and gene expression data. Italian National Research Council, Italy

#### **Quazi Azher Ali SAARC Programming Contest**

Dec 2014

Problem solving contest using programing language. Bangladesh University, Bangladesh

#### **LINKS**

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

#### **SCHOLARSHIPS AND AWARDS**

#### Tianjin Government Scholarship

I received the Tianjin Government Scholarship in 2018, 2019, and 2020 while studying at Tianjin University in China. This scholarship was awarded by the local government of Tianjin, China, to support my studies during those respective years.

# **REFERENCES**

#### Fabrice MERIAUDEAU

ICMUB Laboratory,

**CNRS UMR 6302** 

Professor, University of Burgundy

#### Alain Lalande

Professor, University of Burgundy Spectroscopy-NMR Department Children's Hospital - CHU de Dijon Alain.Lalande@u-bourgogne.fr