

# Mohammad Abdul Ahad Chowdhury

Bangladeshi graduate student of Data Science at Macquarie University, with experience in full-stack web development and academic machine learning projects. Looking for a part-time/casual employment in the IT industry.

Unit 11, 53 Constitution Road, Meadowbank, NSW 2114  
+61482605155 • [maacpiash@outlook.com](mailto:maacpiash@outlook.com) • [ahad@maacpiash.com](mailto:ahad@maacpiash.com)  
Skype: [maacpiash](#) • LinkedIn: [maacpiash](#) • [www.maacpiash.com](http://www.maacpiash.com)  
GitHub: [maacpiash](#) • NPM: [maacpiash](#) • NuGet: [maacpiash](#)

## Education

### Master of Data Science

#### Macquarie University

New South Wales, Australia

February 2020 – December 2021 (Tentative)

Notable coursework: [Data Science](#) • [Big Data](#)

### Bachelor of Science in Computer Science and Engineering

#### North South University

Dhaka, Bangladesh

January 2014 – August 2018

Capstone project: Fruit Image Classification

Using Convolutional Neural Networks

Notable coursework: [Artificial Intelligence](#) • [Theory of Fuzzy Systems](#) • [Computer Graphics](#) • [Software Engineering](#) • [Microprocessor Interfacing & Embedded System](#)

## Technical Skills

- ❑ **Programming languages**  
(in order of skill level): C#, JavaScript (ES6), TypeScript, Python, C, Java, C++
- ❑ **Web development**
  - ASP.NET Core, Entity Framework Core, Blazor, Identity Framework
  - React.js, Angular, Express.js, Hapi.js
  - Socket.IO, ReST, GraphQL, Microservices architecture
- ❑ **Desktop app development**  
Windows Forms, WPF, UWP, Electron.js
- ❑ **Data science and engineering**  
Jupyter Notebook, NumPy, Pandas, Matplotlib, NLTK, Scikit-Learn
- ❑ **Database systems**  
MongoDB, Microsoft SQL Server, PostgreSQL, SQLite, RethinkDB
- ❑ **DevOps**  
Docker, MongoDB Atlas, Heroku, Azure App Service, Travis, AppVeyor
- ❑ **Development methodology**  
Agile (scrum)

## Publication

- ❖ Selection of Most Suitable Secondary School Alternative by Multi-Criteria Fuzzy Analytic Hierarchy Process. ([Springer/AISC, 2019](#))
- ❖ Fruit Image Classification Using Convolutional Neural Networks. ([IGI Global/IJSL, 2019](#))
- ❖ Fusion of BWM and AHP MCDM Methods to Choose the Most Suitable Secondary School for an Individual in the Context of Bangladesh. ([World Scientific/VJCS, 2019](#))

## Work Experience

### Junior Software Engineer at Dynamic Solution Innovators Ltd.

01 February 2019 – 31 January 2020 • Dhaka, Bangladesh

An enterprise software company [[Website](#)]. Worked here on Node.js-based web applications.

- ❖ **Project: Olwel** • 01 August 2019 – 31 January 2020  
**Description:** Olwel is a startup that provides essential doorstep healthcare. [[website](#)]  
**Environment:** JavaScript, Hapi.js, React.js, Electron.js, Socket.IO, RethinkDB  
**Contribution:**
  - ✓ Implemented attendance recording system for doctors and call-center operators.
  - ✓ Added search-by-date and search-by-name for doctor visits (a.k.a. 'missions').
  - ✓ Implemented sending mission-specific notes to the doctor on the mission.
  - ✓ Made missions-list-view component load faster by 50% by optimizing API calls.
  - ✓ Wrote unit tests (Mocha); added test coverage (Istanbul).
  - ✓ Wrote scripts for generating reports on missions, with customized anonymization of patients' personal data, for a research on the 2019 dengue outbreak in Dhaka.
- ❖ **Project: OpenCRVS** • 01 March 2019 – 31 July 2019  
**Description:** Civil Registration and Vital Statistics (CRVS) software. [[website](#)]  
**Environment:** TypeScript, Hapi.js, React.js, GraphQL, MongoDB, Docker (Swarm)  
**Contribution:**
  - ✓ Implemented lock-screen PIN setting policy.
  - ✓ Implemented lock-screen timeout using browser's page visibility API.
  - ✓ Added conditional validation for co-dependent form-fields.
  - ✓ Added offline data storage for form drafts that uses browser's localStorage API.
  - ✓ Wrote unit tests and integration tests; refactored code to increase test coverage.

[[View commits on GitHub repo](#)]

### Research Assistant at North South University

01 November 2016 – 31 March 2018 • Dhaka, Bangladesh

Part-time employment under the Department of Environmental Science and Management ([website](#)) for a research project titled "Satellite-based Navigation in Civil Aviation: Performance Evaluation in the Context of Bangladesh" [[News article](#)]

**Contribution:** Developed the desktop application (using Windows Forms) for NODES, an airline management software that uses linear optimization to maximize usage of resources.

## Personal Projects

- ❑ **Connery** – ML.NET, TensorFlow.NET, ASP.NET Core [[API \(Swagger\)](#)] [[GitHub repo](#)]  
Fruit-image-classifier that uses convolutional neural network.
- ❑ **Kon School?** – ASP.NET Core, MongoDB [[Azure](#) • [Heroku](#)] [[GitHub repo](#)] [[Docker](#)]  
Fuzzy-AHP-based recommendation system for secondary schools in Bangladesh.
- ❑ **Winston** – C, Cmake [[GitHub repo](#)]  
Implementation of neural network from scratch. *WIP*.
- ❑ **Vardict** – Node.js, Typescript [[NPM package](#)] [[GitHub repo](#)]  
A basic Node.js package for parsing labeled CLI arguments.
- ❑ **AddLicenseHeader** – .NET Core [[NuGet package](#)] [[GitHub repo](#)]  
A CLI tool that adds a license header on top of each source file of a directory.
- ❑ **MqFind** – Node.js, TypeScript, Hapi.js, React.js [[GitHub repo](#)]  
A web app that shows listings of accommodation near Macquarie University campuses.

## Open Source Contribution

- ★ [sandoche/Darkmode.js](#): A Node.js package for dark-mode-toggles in React.js websites.
- ★ [howtocode-com-bd/git.howtocode.com.bd](#): A tutorial on Git, in Bengali.
- ★ [devsonket/devsonket.github.io](#): A developer cheat-sheet, in Bengali.