# 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.

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#### Education

# Master of Data Science Macquarie University

New South Wales, Australia February 2020 – December 2021 (Tentative)

# 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 [GirHub] Senior-year courses: Machine Learning, Artificial Intelligence, Theory of Fuzzy Systems

#### **Technical Skills**

- ☐ **Programming languages**: C#, JavaScript (ES6), TypeScript, Python, Java, C
- Web Development:
  - ASP.NET Core, EF Core, Razor, Blazor
  - React.js, Angular, Express.js, Hapi.js
  - Socket.IO, ReST, GraphQL
- ☐ **Desktop app development**: Windows Forms, WPF, UWP, Electron.js, JavaFX
- ☐ Database management and query: MS SQL Server, SQLite, MongoDB, RethinkDB
- ☐ Tools and Platforms: Docker, MongoDB Atlas, Heroku, Azure DevOps, basic CI/CD
- ☐ **Development management**: Agile (scrum)

## **Publication**

- Selection of Most Suitable Secondary School Alternative by Multi-Criteria Fuzzy Analytic Hierarchy Process. (<u>Springer/AISC</u>, 2019)
- Fruit Image Classification by Convolutional Neural Networks. (<u>IGI Global/IJSI, 2019</u>)
- 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)

### **Open Source Contribution**

- ★ sandoche/Darkmode.js A Node.js package for adding dark-modetoggle to React.js websites.
- ★ howtocode-com-bd/git.howtocode.com.bd A tutorial on Git, in Bengali.
- ★ devsonket/devsonket.github.io Developer cheat-sheet in Bengali.

### Work Experience

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

Dhaka, Bangladesh

01 February 2019 – 31 January 2020

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

- Project: Olwel, 01 August 2019 31 January 2020 [Client's 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 [Website GitHub repo]
  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, Dhaka, Bangladesh

01 November 2016 - 31 March 2018

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 [Azure Heroku] [GitHub repo] [Docker Image] 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.
- ☐ MqFind Node.js, TypeScript, Hapi.js, React.js [GitHub repo]

  A web app that shows listings of accommodation near Macquarie University campuses by scraping the official accommodation website of the university. WTP.
- ☐ Bangla News Scraper JavaFX, jsoup, Maven [GitHub repo]
  A cross-platform desktop app that scrapes news articles from a news portal.