Arushad Ahmed

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EDUCATION

MSc Artificial Intelligence (Distinction)

University of St. Andrews, UK 2022 – 2023 Dissertation Topic: "A better Automatic Speech Recognition (ASR) System for an Under-resourced Language"

BSc (Hons) Computer Science (First Class)

University of Nottingham, Malaysia 2013 - 2016 FYP Topic: "A Deep Learning approach for classifying Thaana alphabet symbols"

Edexcel A'level (3 A*s) & HSC Islam (A), Dhivehi (B)

Centre for Higher Secondary Education (CHSE), Maldives 2010 - 2012

Cambridge GCE (4 As), IGCSE (2 A*s) O'level & SSC Islam (A), Dhivehi (B)

Majeediyya School, Maldives 2007 - 2009

Primary Education Kalaafaanu School, Maldives 2000 - 2006

EXPERIENCE

Co-Founder & Chief Technology Officer

Javaabu Pvt. Ltd., Maldives 2017 – NOW

- Responsible for implementing overall software development strategy and maintaining software quality
- Gathering requirements from an international clientele and formulating requirements specifications for ongoing projects
- Designing and developing system architectures for AI/Machine Learning applications, Web-based Information Systems, Mobile Applications and IoT Backends
- Leading and supervising day to day work of the in-house development team of 10
- Hiring new developers and designers
- Introducing latest development technologies
- Project management and coordination with clients

TECHNICAL SKILLS

Windows, CorelDraw, Photoshop, Lightroom, Eclipse, MS Access, Laravel, PhpStorm, AfterEffects, Premiere, Android Studio, HTML, CSS, WordPress, PHP, MySQL, Java, VBA, JavaScript, C/C++, Haskell, Python, AWS, VueJS, PyTorch

LEADERSHIP

Pangkor Hall Committee Member

2013/2014, Uni. of Nottingham (MY) Helped organize events for the hall and attended to issues of fellow hall residents

Deputy School Captain

CHSE, 2011/2012 Took initiative in organizing school events

Shaheedh Ali House Captain

Majeediyya School, 2009 Led my house at school events

TEACHING

Conducted Web Dev Workshops 2013 - 2016

For Digital Arts Guild at University of Nottingham Malaysia Campus

Voluntary O'level Tutorial Sessions

2014 For students at Uligamu Madharusa, Maldives

Part-time Tutor *2011* At Smart Education Center, Maldives

Founder, Sole Proprietor & Lead Developer

Javaabu SP, Maldives

2016 – NOW

- Providing web design, app development, and graphic design services for an international clientele
- Deploying projects on cloud hosting services and Linux server configuration

Freelance Developer

2013 - 2016

 Web design, mobile app development, graphic design, photography & videography services for an international clientele

Part-time Tutor

Smart Education Center, Male', Maldives 2011

 Taught Math, Physics and Chemistry to O'level students from grades 8, 9 and 10

PUBLICATIONS

Improving Dhivehi Automatic Speech Recognition (ASR) with Sub-word Modelling, Language Model Decoding and Automatic Spelling Correction

Proceedings of the 6th International Conference on Natural Language and Speech Processing (ICNLSP 2023), pages 256–265, Online. Association for Computational Linguistics · Dec 17, 2023

PROJECTS

2023 DhivehiGPT – Javaabu Pvt. Ltd.

dhivehigpt.com

Designed and developed the first online AI platform dedicated to Dhivehi language. Implemented Dhivehi AI chat with text generation capabilities. Trained and deployed Dhivehi Speech to Text models with Speaker Diarization. Deployed Dhivehi Text-to-Speech models. Implemented a comprehensive subscription system with Payment Gateway integration, usage tracking and support for team accounts. Implemented a zero-downtime deployment system for high availability even during system updates. Designed the system architecture to be highly scalable to serve a user base of over 40,000 registered customers as of December 2024.

2021 **Kiyeveni eLearning Portal –** United Nations Development Programme (UNDP)

kiyeveni.mv

Designed the system architecture and developed a custom eLearning portal for conducting online courses on Women Empowerment for Maldives Local Government Authority (LGA).

The portal can deliver video and textual course content, conduct quizzes, submit assignments and is accessible with sign language integration. It can also issue e-certificates on course completion and provides detailed analytics on student enrollment and engagement. The project was primarily funded and run by the United Nations Development Programme (UNDP) with additional funds by the British High Commission Male' and Australian Aid.

2020 Visit Maldives Website – Maldives Marketing & PR Corporation (MMPRC)

visitmaldives.com

Designed the system architecture and developed a custom multilingual CMS using Laravel PHP framework for Maldive's official travel destination website. Also implemented a responsive UI according to the design specification using Bootstrap CSS framework.

2020 The Circle Platform – Ugail Foundation, Maldives

portal.thecircle.ac

Designed and developed an eLearning management platform catering to over 600 students. Implemented a dynamic video generation feature using multi-threading, Lottie Files, NodeJS and FFMPEG. Integration with AWS S3.

2019 DFNest IoT Backend System – Digital Forest Sdn. Bhd., Malaysia

app.dobiqueen.my

Designed the system architecture and developed a custom IoT backend for adding digital payments and transaction tracking to cash-based laundry token dispensing machines.

Implemented real-time IoT device data-logging, real-time device monitoring, uptime tracking and OTA firmware updates using MQTT, NodeJS, Redis, Web Sockets and MongoDB

Developed a customer loyalty management system with multiple payment gateway integrations, promo codes, reward system and Facebook and Google social logins.

2019 Vessel Management System – Maldives Post Limited

vms.mv

Designed the system architecture and developed a custom logistics management system using Laravel PHP Framework with real-time carrier tracking, online ticket and cargo bookings, mail tracking and accompanying mobile app.

Implementation of a REST API for consumption by the associated mobile app with OAuth2 authentication and Firebase Cloud Messaging integration for real-time push notifications.

2019 Transport Authority Vessel Information System (TAVIS) – Transport Authority, Maldives –

funded by the Asian Development Bank (ADB)

Designed and developed a system for managing registrations and issuing safety certifications for all vessels in Maldives in accordance with local regulations and IMO standards. Implemented a role-based system with full online and over-the-counter application processing pipeline with entry, verification, authorization, payment, and issuance. Developed dynamic PDF generation for permits and registrations with Thaana script support. Conducted extensive requirements analysis sessions with stakeholders to identify business processes and discover ways to streamline existing workflows.

2018 **Job Center –** *Ministry of Economic Development, Maldives – funded by the World Bank* jobcenter.mv

Designed and developed a custom job portal for the Maldivian government for connecting employers and jobseekers. Implemented a custom algorithm for smart job matching with

jobseekers' interests and qualifications. Integrated SMS gateway for job listing notifications and developed a dynamic PDF CV generation feature.

- 2017 **eTukuri eCommerce Platform -** *Maldives Post Limited* shop.etukuri.mv Designed and developed a custom ecommerce platform for Maldives Post Limited with online payments integration, stock management and order management.
- 2016 Land and Building Department (LBD) Information System Ministry of Housing and Infrastructure, Maldives Designed and developed a system for managing all land titles of the capital Male' city.
- 2015 Maldivian Red Crescent Website Maldives Red Crescent (MRC) www.redcrescent.org.mv Designed and developed a website, online volunteer registration system and donation system with payment gateway integration.
- 2015 MyMentor Website University of Nottingham, Malaysia www.mymentor.edu.my Developed a website for MyMentor academic project initiated by Malaysian Ministry of Higher Education and a group of foreign universities operating in Malaysia.
- 2014 ASA Website Assoiciation for Social Awareness (ASA), Maldives www.asa.org.mv Voluntarily developed a custom WordPress based website for the local NGO creating their first official web presence.
- 2010 **CHSE Website -** *Centre for Higher Secondary Education (CHSE), Maldives* www.chse.edu.mv Headed the web development team for the school's first website.

AWARDS

- NOV 2023 School of Computer Science Award for MSc in Artificial Intelligence 2022/2023 Awarded by the University of St. Andrews to the best overall student with the highest mean
- NOV 2023 **Dean's List 2022/2023** Awarded by the University of St. Andrews to students who average 16.5 or over in their degree
- JUL 2022Commonwealth Masters Scholarship 2022/2023Awarded by the Commonwealth Scholarship Commission. Funded by the UKForeign, Commonwealth & Development Office (FCDO)
- OCT 2021 National Youth Award 2021 Awarded by the Ministry of Youth Sports & Comm

Awarded by the Ministry of Youth, Sports & Community Empowerment, Maldives in the area of Business and Economy

NOV 2019	President's Special Award for High Achievement Awarded by the President of the Maldives for achieving the top marks in BSc (Hons) Computer Science at the University of Nottingham Malaysia Campus in 2016 and achieving the best Final Year Dissertation from the School of Computer Science
JUL 2016	Best Project Award 2015/2016 Awarded by University of Nottingham for the best Final Year Dissertation from the School of Computer Science
AUG 2015	Dean's Excellence Scholarship Award 2014/2015 Awarded by University of Nottingham for outstanding academic performance
AUG 2014	Dean's Excellence Scholarship Award 2013/2014 Awarded by University of Nottingham for outstanding academic performance
AUG 2013	Maldives Airports Company (MACL) Ltd. Scholarship
NOV 2012	Edexcel Merit Award For gaining 3 A*s in A-level Subjects
SEP 2010	Gold Star of Majeediyya School 2009 For being the best all-round student
APR 2010	Cambridge Outstanding Achievers Award For gaining the 3rd highest marks in the world and the highest in the Maldives at the Nov 2009 Cambridge O-Level exams for Computer Studies
APR 2010	Cambridge Top in Maldives Award For gaining the highest marks in SSC Islamic Studies at the November 2009 exams
FEB 2007	Top Scorer of Kalafaanu School 2006

PASSIONS

Photography

view my photos at <u>flickr.com/arushad</u>

Videography

watch my videos at <u>youtube.com/dash8x/videos</u>

Travel

read about my adventures at <u>arushad.com/category/travel/</u>