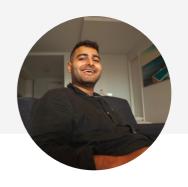# KERELOS TAWFIK

SOFTWARE ENGINEER

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PROFILE

I am a software engineering student studying at UNSW with 6 months of experience in full-stack web and application development. Team player with a strong work ethic and creative mind.

SKILLS

- Angular Framework
- Microsoft Azure
- Microsoft ASP.NET, Web API Experience
- SQL and MongoDb
- Full-Stack Development
- Java & C/C#/C++ experience
- Microsoft Form Recogniser API

EXPERIENCE

JUNIOR SOFTWARE DEVELOPER

MAIA Financial/Credabl

2020 - Present

- Website and API design.
- Independently created form recognition tool using newly developed software
- Unit Tests and Integration Tests

EDUCATION

SECONDARY SCHOOL

Redeemer Baptist School

2007 - 2017

BACHELOR OF TECHNOLOGY

University of Technology Sydney

2018 - 2021

PROJECTS

INVOICES API

- Developed full-stack web application that utilised Microsoft Form Recognizer when it was relatively new. This would read in invoice forms and extract the form data. The frontend was written using Angular, the backend was written using C#/ASP.NET and the database in Microsoft SQL.

WORK EXPERIENCE

MAIA FINANCIAL/CREDABL

- **Accounting API Integrations:** Developed code for retrieving balance sheets and profit & loss data from
- QuickBooks, MYOB and Xero accounting APIs to streamline and simplify the loan application process.
- **Document Parser:** Created a service that ran code inside Word documents to replace the code template with
- the output. This was a document generation tool that was planned to be used for the generation of custom
- financial documents.
- **Email notification:** Created a service that would automatically send an email through the use of SendGrid API
- to notify the applicant and their nominated accountant at the end of the loan application.
- **CI/CD:** Created an Azure pipeline to automatically update the staging server upon pull request approval. Upon passing tests and approval from my supervisor, changes would be pushed to a separate production server.
- **Data Collection:** Developed methods to extract and store form application data within a MYSQL database.
- **Front End Code Redesign:** Redesigned the code base for the front end to be more concise and extendable.
- **Front End Design:** Developed a responsive front end using Angular and Bootstrap. Many services written here
- were planned to be used in other projects throughout the company reducing workload for future projects.
- **Linking Front and Backend:** Built services in the front end to handle API calls to the backend.
- **Web Services:** Created many RESTful API endpoints using ASP.net for tasks such as data processing.
- **Teamwork:** Worked in an Agile work environment with stand-ups, sprint planning and issue tracking using Jira in order to enable clear communication between the team and myself.
- **Unit Testing:** Utilisted NUnit to create a set of unit tests for all backend services, ensuring functional
- correctness of the code I had developed.

PRIVATE TUTORING

- **Computer Science:** Taught the basics of programming, object-oriented design, networks, databases, and AI to multiple CSE students.
- **4-Unit Mathematics:** Taught HSC topics of 4 unit mathematics and physics to grade 12 students.

PROJECTS

Graph & Algorithms

- Dynamically programmed Graphing Algorithms (cycle checking, Vertex Reachability Dijkstra's Algorithm, Tarjan's Algorithm, Strong Connectivity, Weak connectivity, Hamiltonian path checking etc.)
- Github Repository

NotAmazon

- Led a team of 6 other students to develop full-stack web application. This application has three separate views for sellers, administrators and customers with different privelleges assigned. The frontend was written utilising a reactive design in Angular. The backend was written in C#/ASP.NET and the database utilised was Microsoft SQL.
- Github Repository

Jamie's Computer Store

- Created a Graphical User Interface utilising MVC & Observer patterns. This was written in JavaFX
- Github Repository