Arkar Win

Full-Stack Software Engineer

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EDUCATION

Bachelor of Computer Science (Software Engineering)

Dec 2013 - Nov 2018

University of Information Technology (UIT)

• GPA: 3.7/4.0 (A-)

KEY SKILLS

- Frontend & Frameworks: Expert in Angular (component architecture, reactive forms, RxJS, Angular Material), Skilled in frontend engineering with a focus on clean architecture, responsive UI/UX, and accessibility. Experienced in TypeScript, JavaScript, Flutter (multi-flavor setup, state management with Provider/Riverpod/BLoC), and Ionic (legacy support using Capacitor/Cordova, Google Maps integration). Proficient in building scalable SPAs, implementing deep linking (Branch.io), push notifications (OneSignal), and custom widget development.
- Backend & APIs: RESTful API development, Firebase (Authentication, Firestore, Realtime Database), Firebase Cloud Functions, Firebase App Check, Docker-based API deployment, Node.js, Ruby on Rails
- Testing & Quality Assurance: Strong experience with Angular unit testing using Jasmine and Karma, Widget & integration testing in Flutter, Unit testing in Ionic, Firebase Crashlytics, performance debugging, error monitoring and issue tracking
- DevOps & Cloud Services: Google Cloud Platform (GCP), Cloud VM instance hosting,
 Docker image creation & deployment, Git & Bitbucket (CI/CD), npm artifact registry,
 Firebase CLI tools, Flutter build automation, AWS
- App Distribution & Analytics: Play Store & App Store deployment, Firebase App Distribution, Version control via Remote Config, Analytics integration (Firebase)
- **Search & Performance Optimization:** Typesense, Algolia, Type-ahead search, Lazy loading, API caching strategies, Performance profiling and memory management in Flutter

- Project & Collaboration Tools: Jira (sprint/task management), Confluence (technical documentation), Git-based version control, Slack, Notion
- Soft Skills: Research & Fast Learning, Effective Cross-functional Communication,
 Agile & Scrum methodologies, Problem-Solving, Initiative in Continuous Improvement

EMPLOYMENT

One Atkhayar, Co., Ltd (Yangon, Myanmar)
Junior Developer → Full-Stack Software Engineer

July 2019 - Present

- Led the development and launched consumer apps (Ionic Angular Framework) <u>Shidel</u> and <u>Chat Chin</u> on App Store, Google Play, and Huawei App Gallery, adding marketplace functionality and app maintenance.
- Designed and built the Merchant App (Flutter) for internal business operations and vendor management, focusing on modular, reusable UI components, multi-platform responsive design, and scalable architecture.
- Built responsive, accessible UI layouts across iOS and Android using Ionic (Angular), integrating Figma and InVision designs into pixel-perfect interfaces with custom widgets, theme management, and consistent design systems.
- Worked closely with designers to ensure WCAG-compliant, user-friendly experiences, and participated in usability testing and UI testing to validate design intent and interactivity.
- Implemented multi-flavor ionic app setups and CI/CD pipelines for seamless testing and deployment across staging, and production environments.
- Developed and maintained unit tests for Ionic (Angular) components and services using Karma and Jasmine, and applied node code coverage tools to ensure quality thresholds and identify untested paths in the codebase.
- Integrated **Firebase services** (Authentication, Firestore, Realtime Database, Cloud Functions in Node.js) with **Remote Config** for dynamic version and feature control without app updates in **Ionic (Angular)**.
- Integrated **backend APIs** (built in Ruby on Rails) to support real-time transactions, content updates, and data syncing.
- Deployed and maintained **Docker-based APIs** on **Google Cloud VM Instances**, ensuring performance, reliability, and scalability of backend infrastructure.
- Configured **OneSignal** for push notifications and **Branch.io** for deep linking, improving user engagement, retention, and cross-channel activation.
- Developed fast, intuitive **type-ahead search components** using **Typesense** and **Algolia**, boosting discoverability and search relevance.
- Used **Git**, **Bitbucket**, and **Sourcetree** for version control, led **code reviews**, and managed **Jira sprints** and tasks to deliver features in agile cycles.
- Authored and maintained **technical specs**, **flow diagrams**, and **system documentation** in **Confluence**, improving team communication and onboarding.

- Integrated **npm artifact registry** to streamline package reuse across **Ionic (Angular)** apps, improving maintainability and development speed.
- Researched and resolved complex Ionic (Angular) issues independently, improving performance, crash resilience, and cross-platform edge case handling (e.g., permissions, background services).
- Applied state management patterns like Provider, Riverpod, and BLoC for scalable, maintainable front-end architecture in Flutter for Merchant App.
- Implemented Clean Architecture in Flutter by separating presentation, domain, and data layers, using principles like dependency inversion, use case abstraction, and repository pattern.
- Self-taught and resolved advanced issues in Ionic Angular Framework, Flutter contributing to performance profiling, bug fixing, and platform-specific optimizations (e.g., background services, permissions).
- Continuously contributed to code quality, maintenance and bug fixing in both lonic-Angular and Flutter, taking ownership of platform-specific edge cases

Innovative Global Wave Technology - Yangon, Myanmar Junior Developer

June 2018 - March 2019

- Built a Blood Donation Web Application using Angular 6, C# .NET, and SQL, focusing on responsive design, real-time donor data updates, and secure form submissions.
- Researched and documented development patterns for Angular 6 and Angular 7, producing internal guides and architecture references for a blood donation platform with team collaboration.
- Created an Admin Dashboard (Angular) for Microfinance Data Visualization, implementing dynamic charts (e.g., bar, line, pie) using libraries like Chart.js and ngx-charts to represent loan performance, repayment history, and customer distribution.
- Developed Angular unit tests using Karma and Jasmine, ensuring robust test coverage for components and services; applied code coverage tools to monitor and maintain quality thresholds across builds.
- Contribute **data export features** for microfinance applications, enabling efficient downloading of transaction lists and loan history in Excel and CSV formats.
- Managed and maintained backend APIs for Microfinance solutions, integrating with C#
 .NET services and handling secure data operations.
- Collaborated on YCDC (Yangon City Development Committee) payment gateway system, building and testing .NET backend APIs and contributing to unit testing for financial transaction reliability.

PROJECTS

University of Information Technology (UIT) – Master Degree Thesis

Morse Code Audio Recognition using LSTM-CTC Model

February 2023

- Research Proposal Paper: https://ieeexplore.ieee.org/document/10181830
- Developed a deep learning model to recognize Morse code from audio using Long Short-Term Memory (LSTM) networks.
- Created a custom Morse code audio dataset by converting text characters into audio signals.
- Utilized Mel-frequency Cepstral Coefficients (MFCCs) for feature extraction from audio.
- Applied Connectionist Temporal Classification (CTC) for accurate sequence-to-label mapping.
- Aimed to support audio-based Morse code interpretation, especially for emergency (SOS) applications in maritime communication.
- Technologies: Python, TensorFlow/Keras, Audio Processing, LSTM, MFCC, CTC

University of Information Technology (UIT) - Data Mining Course

Rain Prediction System

October 2017

- Developed a predictive model to forecast rainfall using historical weather data and data mining techniques.
- Cleaned and preprocessed datasets including temperature, humidity, wind speed, and pressure readings.
- Applied classification algorithms Naive Bayes to analyze patterns and improve prediction accuracy.
- Demonstrated proficiency in data handling, feature engineering, and model evaluation for real-world meteorological data.

University of Information Technology (UIT) - Security & Risk Management

Password Cracking Project

September 2018

- To simulate password attacks using tools such as Ophcrack.
- Gained practical understanding of brute-force, dictionary, and rainbow table attacks.
- Learned the importance of password hashing, salting, and rate limiting.
- Discovered how attackers exploit weak or reused passwords.
- Delivered a simulated password-cracking system to demonstrate real-world vulnerabilities.
- Developed a secure login module with enforced strong password policies.
- Provided a report on system resilience recommendations.

University of Information Technology (UIT) - System of System Engineering

Zipline Safety Analysis

December 2019

- Conducted a comprehensive system safety analysis of a zipline attraction using methodologies like Preliminary Hazard Analysis (PHA), Failure Modes and Effects Analysis (FMEA), and Fault Tree Analysis (FTA).
- Identified critical failure points, contributing factors, and assessed risk levels associated with mechanical components, user interactions, and environmental variables.
- Proposed design and operational mitigations to enhance user safety and system reliability.
- Applied system safety lifecycle concepts including hazard identification, risk assessment, and safety verification.
- Collaborated in a team environment to document findings, develop safety cases, and present risk mitigation strategies.

CERTIFICATES and OTHER QUALIFICATIONS

•	System Development Workshop, Fujitsu	2017
•	Information Technology Passport Examination, ITPEC & MCF	2017

REFEREES

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