

Lin Mei

SOFTWARE ENGINEER

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CAREER SUMMARY

- Experienced Software Engineer with 7+ years of expertise in full-stack development, specializing in designing scalable backend systems using C# and Azure Event Hubs as real-time data ingestion service, designing responsive Single Page Applications (SPAs) using Angular and RxJS.
- Strong background in API design and integration, with a focus on developing RESTful services, implementing secure authentication protocols (OIDC, Azure AD), and supporting real-time data flows using SignalR and Web APIs.
- Skilled in developing and maintained custom Windows installers using WiX Toolset, including MSI and bundle setups with prerequisite checks, UI customization, and integration into CI/CD pipelines for automated builds and deployments.
- Proficient in building cloud-native applications and automating deployment workflows using Microsoft Azure services, including Azure Functions, Blob Storage, App Services, and Azure DevOps CI/CD pipelines.
- Adept in implementing automated testing strategies across frontend and backend using Jasmine, Karma, Cypress, Selenium, and Appium to ensure application reliability and maintainability.
- Demonstrated ability to architect modular, component-based systems and deliver cross-platform solutions using Ionic Framework, WinForms, and modern JavaScript frameworks to support desktop and mobile environments.
- Skilled in chatbot development using Microsoft Bot Framework and LUIS, with practical experience in NLP-based automation for enterprise-grade customer support and conversational workflows.

SKILLS

Programming Languages:	C#, TypeScript, Java, JavaScript (ES6+), SQL, HTML5, CSS3, Python
Frameworks & Libraries:	.NET Core, Angular 2+, RxJS, Entity Framework, React, Redux, Bootstrap 4
Bot & AI Platforms:	Microsoft Bot Framework, LUIS (Language Understanding Intelligent Service)
Web Technologies:	RESTful APIs, SPA Architecture, WinForms
Testing Frameworks:	Jasmine, Karma, Cypress, Appium, Selenium
Database Technologies:	SQL Server, Stored Procedures, Triggers, Functions
DevOps & CI/CD:	Azure DevOps, Git, CI/CD Pipelines, Azure Key Vault
Cloud Platforms:	Microsoft Azure (Functions, App Services, Blob Storage, AD), Azure Monitor
Visualization Tools:	D3.js (JS library for visualizing data), Real-Time Dashboards
API & Integration:	Web API Development, Authentication (OIDC, Azure AD), Skype Integration
Mobile & Desktop:	Ionic Framework (Hybrid Apps), Custom WinForms Controls
Architecture & Design:	Component-Based Architecture, State Management, API Data Flow Design
Project Methodologies:	Agile (Scrum), Version Control (Git)

EXPERIENCE

OSIsoft LLC, San Francisco Bay Area - USA

Aug 2023 – Present

Sr. Software Developer

- Develop a high-throughput data ingestion agent in C# (.NET Core) to process and stream over 150k time-series events per second from PI System archives to Azure Blob Storage, leveraging a producer-consumer design pattern.
- Design and maintain custom Windows installers using WiX Toolset 3.x/6.x, including MSI and bundle creation, XSLT-based customization, integration of prerequisite checks, and automation of build/deployment via CI/CD.
- Handle complex installer logic such as creating custom bootstrapper applications, conditional package inclusion, registry configurations, and secure packaging of internal tools.
- Create testing infrastructure for multiple projects. Part of an extensive and iterative design process involving critical design and implementation decisions.
- Automate build and release workflows using Azure DevOps CI/CD pipelines, integrating digital signing with Azure Key Vault, version management, and artifact publishing. This reduce manual steps and accelerate release cycle time by 60%.
- Establish real-time telemetry and diagnostics through Azure Application Insights, allowing continuous monitoring of data ingestion performance, sync health, and error trends. Enhanced visibility and proactive alerting improve incident response time by 20%.
- Provide operational support for 4 enterprise-level mega systems, investigating issues using event logs, crash dumps, and runtime telemetry. Deliver incremental fixes through WiX-based updates, reduce production issues and customer complaints by 40% within six months. Support multiple release cycles across diverse product lines.

Software Developer

- Developed Single Page Applications using Angular 2+ and RxJS in Typescript/Javascript for visualization products for cloud services. Bootstrap 4 for Responsive Web Design along with HTML5 and CSS. Unit testing - Jasmine/Karma and Cypress for E2E testing.
- Integrated D3.js (JS lib for data visualization) with Angular components to build dynamic charts and system visualizations, enabling users to analyze over 2,000 live data streams directly from Azure-based sources through interactive UI elements.
- Designed reusable UI components and services with reactive state handling, improving code maintainability and reducing development time for new features by 25%, while ensuring consistency across multiple internal tools. Structured the frontend architecture of the portal, including API data flow, route management, and service modularization.
- Established automated testing pipelines using Jasmine and Karma for unit tests and Cypress for E2E validation, achieving over 80% test coverage and reducing critical frontend issues in production releases.
- Built and deployed a mobile application using Ionic Framework, providing mobile access to monitoring tools for field engineers, which led to a 40% increase in mobile usage and faster response to system alerts.
- Assessed Azure services such as Azure Functions, App Services, and Blob Storage, recommending infrastructure changes that enhanced performance and reduced monthly operational costs by 20%.

Cybage Software, Pune - India

Feb 2016 - Jun 2017

Software Engineer

- Developed scalable enterprise-level applications using C# and Entity Framework, implementing code-first and database-first approaches, optimizing data access performance, and ensuring seamless integration with SQL Server and other backend systems.
- Created and optimized stored procedures, triggers, and functions in SQL Server to manage conversation logs, user preferences, and resolution data. These backend improvements improved query performance by 35%, enabling faster data access for analytics and reporting.
- Developed a chatbot using Microsoft Bot Framework integrated with LUIS to automate customer interactions, including FAQs and ticket creation, via Skype for Business. Enabled real-time support across three regions, resulting in a 40% reduction in Tier-1 support volume and a 60% improvement in response time.

EDUCATION

Master of Science in Computer Science - University of California, Davis, California, USA**Bachelor of Engineering in Computer Science** - University of Pune, Maharashtra, India**CERTIFICATION**

- Coursera Certification - Applied Machine Learning in Python

ACADEMIC PROJECTS

- **Concrete Crack detection using YOLOv3 and Mask R-CNN** **Fall 2018**
Developed a computer vision pipeline to identify structural cracks in concrete images using YOLOv3 for real-time object detection and Mask R-CNN for instance segmentation. Compared model performance using precision, recall, and IoU metrics. Tuned hyperparameters to improve detection accuracy on complex surfaces. Visualized results with bounding boxes and segmentation masks to support defect severity analysis and automated inspection workflows.
- **Deep audio classification using CNNs** **Dec 2017**
Built an end-to-end audio classification pipeline using the UrbanSound8K dataset by converting raw audio signals into Mel spectrograms and training Convolutional Neural Networks (CNNs). Applied audio normalization and feature extraction techniques to enhance model performance. Achieved reliable classification across diverse sound categories using 10-fold cross-validation. Demonstrated real-world applicability in identifying environmental sound events.
- **Book Recommendation System using Opinion Mining** **Apr 2015**
Developed a book recommendation system to address the "all good reputation" bias on e-commerce platforms like Amazon and eBay. Implemented topic modeling (LDA) to extract latent themes from customer reviews, allowing differentiation between genuine sentiment and repetitive praise. The system used NLP techniques in Python (NLTK, Gensim) to group related terms and assign weighted scores to books based on review diversity and topic relevance, enhancing the quality and accuracy of recommendations.