

## Personal Summary

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- Software engineering experience in distributed and parallel computing frameworks.
- Team leadership and management in cross-functional and cross-team projects.
- Excellent analysis and problem-solving skills, combined with exceptional business judgment.
- Effective communicator between stakeholders, clients and team members to consistently meet project deliverables and internal KPI.
- Curious and fast learner, interest in AI/ML. Built full stack app supporting OpenAI ChatGPT 3.5, 4 API.

## Technical Skills

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### Frontend Engineering

HTML, CSS/SCSS, React, Vue, Angular

### Backend Engineering

NodeJS, PHP, Nginx, Apache, Flask

### Language

JavaScript, Java, Python, PHP, Shell, Lua, Swift

### App Development

Android Studio, Wonderland Engine (WebXR), ElectronJS, React Native, XCode (iOS)

### Database

SQL (MySQL, MariaDB, PostgreSQL), NoSQL (MongoDB, CouchDB, Elasticsearch, Cassandra), In-memory (Redis, Memcached, Etc)

### Cloud Stack

AWS (EC2, S3, Route 53, API Gateway, Alexa, Lex, EKS, RDS), Google Cloud (KE), Digital Ocean, Docker, Helm, Kubernetes, Rancher, Heroku

### Version Control

GitHub, GitLab, Git, BitBucket, SVN

### Project Management

JIRA, Confluence, Trello, MS Project

### Design

Photoshop, Illustrator, InDesign

### OS

Linux, Mac, Windows

## Project Highlights

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### ChatGPT App (personal project) – Biblearn.com

- Full stack development of responsive website – biblearn.com, a bible reader with ChatGPT window answering questions about the verses. User can click on multiple verses and ask custom or pre-filled questions.
- Set up ChatGPT system prompt to answer as a bible expert, researcher.
- Tech Stack: Backend – NodeJS, MySQL, JWT/Bcrypt, OpenAI GTP-3.5-turbo, GPT-4, IAP, Axios, Memcached, MongoDB, secured API. Frontend – React, Axios, user session management.

### AppGallery Ecosystem Solution Engineering Technical Lead

- Technical lead of 10 solution engineer team.
- Meet with AAA US content partners remotely or in-person, analyze business and technical requirements, provide technical solutions to resolve partner's issues.
- Successfully onboarded over 20 top US content partners to the ecosystem. Partners achieved over 300M+ installation growth.
- Support developer community via StackOverflow, [GitHub](#), [Medium](#) ([published article](#)).
- Research and develop new technology for content partners to publish the apps and join the ecosystem such as PWA, Chromium. Participated in PWABuilder open-source project.
- Tech Stack: Android Studio, NodeJS, Vue, PHP, MySQL, Javascript, AWS EC2.

## VR/AR/WebXR Development & Evangelist

- Provide technical support for developer to publish [Wolvic](#) - an open-source web browser that support WebXR experience.
- Develop and publish a WebXR game – [exposexr.com](#) using Wonderland Engine to demonstrate the capability of XR experience and the developer tool. The game is supported on Meta Quest 2, Quest Pro, HTC Vive, Pico 4, etc. Published demo [video](#) for the developer's conference.
- Research and analyze VR/AR/XR solutions and provide technical insights.
- Tech Stack: Wonderland Engine, Blend, Nginx, Express, NodeJS.

## Function-as-a-Service (FaaS) Developer Console

- Full stack design and development of a developer console to author function, test, deploy as a cloud resource similar to AWS Lambda, Azure Functions.
- Create secured RESTful backend API to support file system operation, package installation, database read/write operations, etc.
- Design and developed schema for multi-tenant/multi-user to manage cloud resources, web script editor with fully functional file explorer and manager.
- Automate the application Dockerization and deploy using Kubernetes, Helm, Rancher (YAML/JSON).
- Tech Stack: Vue, ACE (Script) Editor, MySQL, Redis, Etcd3, Ceph S3, NodeJS, JWT, Sequelize.

## Voice + Function Service Developer Console

- Full stack development of developer console to easily create voice-driven intents, slots and function in a few simple wizard steps. Voice capture and recognition via browser API.
- Create secured RESTful backend API to support voice recognition and trigger server less functions.
- Automate the application Dockerization and deploy using Kubernetes, Helm, Rancher (YAML/JSON).
- Tech Stack: Vue, ACE (Script) Editor, GrapesJS (HTML/CSS WYSIWYG) Editor, MySQL, Redis, NodeJS, JWT.

## Cloud Resource Management Console

- Full stack development of cloud resource management console to deploy and manage pods, services, horizontal auto scale, ingress control using native Kubernetes API and client.
- Tech Stack: Vue, ACE Editor, MySQL, Redis, NodeJS, JWT, Kubernetes client and API.

## Serverless Orchestration Service and CLI Tool

- Design and develop serverless orchestration service and CLI tool that uses pluggable modules to deploy applications (similar to AWS Serverless Application Model).
- Tech Stack: NodeJS, Sequelize, MySQL, Redis, Etcd3, Express, Python.

## Desktop SDK Tool for Serverless Orchestration

- Design and develop a Windows/Linux/Mac desktop application using ElectronJS for the developer to write, download SDK, tools, test function scripts and deploy applications from local host to the cloud Ceph Object Storage (RADOSGW) or AWS S3. The SDK features include script packaging (NPM install, archive, pip install), in-app terminal, etc.
- Tech Stack: NodeJS, ElectronJS, Axios, XTerm, Archiver.

## Cluster Logs & Metrics Collection Manager Console

- Development of user console to deploy, manage cluster node's metrics and logs through node agent plugin deployment and central proxy framework. The technology is patented (pending).

- Identified root cause of stress out I/O distributed services using Flame Graphs and applied fixes to stabilize high proxy traffic.
- Automate Redis cluster initialization, write custom Lua script to improve large volume Redis data query performance.
- Submitted patent - [Proxy apparatus and method for data collection](#).
- Tech Stack: Angular, MySQL, Redis, NodeJS, Express, Passport, JWT, Socket.io.

## Professional Experience

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### Principal Engineer

#### Futurewei Technologies, Santa Clara, CA (2015 ~ 2023)

- Technical lead of US developer technical support team, work hand-in-hand with the business development (BD) group to bring top US content partners to the app ecosystem.
- Drive the business discussions through innovative technical solutions and help content partners thrive in the ecosystem. Author technical presentation material for business presentations.
- Design software architecture with engineers to automate and deploy built apps to the app store using Publishing API. Review and optimize the backend publishing API in Python.
- Provide training for developers and BD – SDK integrations, monetization solutions, best practice for pre and post-app publishing.
- Evangelize open-source Wolvic WebXR browser and developer tool such as Wonderland Engine.
- Participate W3 Immersive-web group to support WebXR, VR Glass vendor hardware profiles.
- Engineer user interface console to drive and manage complex enterprise applications such as proxy-based cluster metrics and log collector; IoT flow programming framework; distributed object recognition function between cloud, edge and device; serverless function and application orchestration, etc.
- Build multiple enterprise full stack web applications using frameworks such as Vue, React, Angular, NodeJS backend and databases (MySQL, MongoDB, Redis).
- Develop serverless developer consoles such as FaaS, voice service, API gateways.

### Senior Visual Designer

#### Search411, Sunnyvale, CA (2013 ~ 2015)

- Visualize storyboards, wire-frames, interaction & interface design and branding for the mobile & web applications.
- Design & develop a responsive layout corporate website using Bootstrap & HTML Kickstart.
- Create iOS app prototype in proto.io for developer team. Improve interface design by providing CSS guidelines.
- Search411 is a startup working to streamline the recruitment process for the hiring managers and the job search process for the job seekers.

### Senior Web & Graphic Designer

#### Green Banker, Burlingame, CA (2002 ~ 2014)

- Lead a team of junior graphic designers in a \$300M annual sales volume brokerage and elevate broker as the #1 producing individual agent in the Bay Area since 2005; Top 3 agents in United States in 2008; #1 performing agent in Northern California in 2012, 2013 & 2014, by Wall Street Journal & REAL Trends.
- Develop corporate website with PHP/MySQL, Google Map API.
- Research & analyze property market value using Tableau Desktop & Online.

## Senior Application Designer & Project Leader

ADFI Media, Los Altos, CA (2011 ~ 2012)

- Produce customer seating web application designed for iPad & tablets using HTML/CSS, PHP, MySQL, JQuery Mobile & JS. Integrate Twilio API for SMS capability, news feed API.
- Conceptualize interaction flow, UI design for web application.
- Create a secured wireless network to communicate between tablets, database server and engaging big screen that display numbering, ads and news feeds.

## User Interface & Graphic Designer

SenaReider Advertising, San Francisco, CA (2000 ~ 2002)

- Advertising Award: 2002 District 14 Gold Addy for Best Interactive Media.
- Lead web development manager and designer. Design ads, print, web, outdoor, interactive multimedia and web.

## Education

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### Immersive Coding Bootcamp

Coding Dojo, San Jose, CA (2015)

Black Belt Achievement (LAMP, MEAN Stacks, iOS)

### Bachelor of Arts, Graphic Design

University of Central Oklahoma, OK (1997~2000)

Phi Eta Sigma National Honor Society

### Diploma in Graphic Design

Central Academy of Art, Malaysia (1994~1996)

Reference available upon request.