

# Di Sheng

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## Full Stack Developer | Ruby on Rails Web Developer

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- Experienced full stack developer featuring expertise in Ruby on Rails and related web development technologies
- Good exposure to all stages of the development life cycle including analyzing, designing, developing, testing and deploying
- Experienced various open source and proprietary Ruby Gems such as Rspec, Devise, Spree, Sidekiq, React-rails, kramdown and Twilio-rails
- Good networking knowledge and experience on HTTP, FTP, DNS, DHCP, RSVP and SSH
- Good understanding in Rails native APIs like ActionCable, ActionController, ActionView, Active model and Helpers, experienced in Rails plugin/engine development such as resolver, handler, renderer, content management system, live streaming engine and websockets.
- Proficient in front-end developing with Angular 4, including Redux like App state managing with NgRx, App optimizing with AoT (ahead of time compilation) and SSR (server side rendering), and unit testing with TestBed and Angular CLI
- Proficient in using AWS cloud service, including static webpage hosting on S3, server-side deploying and maintaining on EC2 utilizing SSH and tmux, and database (RDBMS/NoSQL) designing and administrating.

## SKILLS

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**Languages and Frameworks:** Ruby (Ruby on Rails), JavaScript/Typescript (Angular4/React), HTML/HAML/XML, CSS/SASS (Bootstrap), Java, C, Shell Script (PowerShell/Bash), Assembly Language, SQLite/PostgreSQL/MongoDB

**Software/Platform:** Vim, Tmux, Git, Android Studio, Visual Studio, Docker, Heroku, AWS Cloud Service (EC2/S3), JIRA, Confluence, Salesforce, Polarion, Docker, BeEF, Metasploit, ZAP, Wireshark, KACE, MatLab, AutoCAD, Adobe Premiere CS6, MS Office/Project, CodeWarrior, Raspberry Pi GPIO

**Operating Systems:** Linux (Fedora/Ubuntu/Kali/Raspbian), Windows OS, Windows Server 2003/2008

## WORK EXPERIENCE

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### Software Testing Engineer

August 2016 – Present

*Zebra Technologies, Holtsville, NY*

- Participating in testing and debugging process of agile development cycle for new products
- Customizing and maintaining old test apps to meet the new test requirements on both Windows and Android platform
- Generating traceable test plans utilizing Polarion and generating report utilizing Ruby script and JIRA REST APIs
- Performing root cause analysis and risk analysis during the debug process, collaborating with developer and engineer team to solve and close the open issue
- Proficient in generating various documentation such as traceability matrix, status reports and README files

### Programmer Intern

January 2016 – May 2016

*Kalki Consulting LLC, New York City, NY*

- Developed PowerShell script with UI which can automatically install selected software remotely
- Developed Ruby script and Rails App with CRUD and API interface to automate daily infrastructure inspection such as ping test and E-mail server inspection, then post report to an JIRA/Confluence page through RESTful API
- Customized and maintained a Batch script to remotely install OS image over DHCP server and virtual LAN
- Developed PowerShell script to generate Active Directory and Exchange Server reports, which were utilized by IT department for Windows Server 2003 management
- Designed a questionnaire website (<https://info.kalkiconsulting.com/ratemyit>) which integrated with Salesforce API to generate leads in database and response by different E-mail template based on the user's score
- Customized an open source Rails phishing APP Phishing-Frenzy and deployed on AWS EC2 instance, which is utilized to test the security sensitivities of clients' employees

### Research Assistant

September 2015 – December 2015

*New York Institute of Technology, Old Westbury, NY*

- Proposed a conceptual homomorphic encryption design implemented on cloud based healthcare data store
- Enabled directly cloud side operation on encrypted patients' data without decryption
- Enhanced understanding of various encrypting systems and concepts in information security field

### Web Developer

May 2014 – September 2014

*JB Analytical Inc., Syosset, NY*

- Performed HTML and CSS coding, prepared and uploaded multimedia files onto website
- Managed and maintained the website, including checking, testing and updating information regularly

- Worked collaboratively with others to provide online customer service and technical support

## **PROGRAMMING PROJECTS (Source code all available at <https://github.com/ChocolateAceCream>)**

### **Angular Single Page App(<http://superapp.s3-website-us-east-1.amazonaws.com/>)**

- Utilized Angular 4 as front end and Google Firebase as backend, enabled varieties of functions such as authentication, data fetching/storing and content management system.
- Utilized data binding, pipes, directives and ReactiveFormsModule to enhance reactive UX
- Utilized NgRx for implementing Redux like state management system, such as utilizing reducer for synchronous state change and effects for asynchronous state change
- Utilized Express Server and Webpack to implementing server side rendering, also utilized AWS S3 for static hosting
- Utilized JWT and Route Guards to enhanced the security of authentication process

### **Raspberry Pi Project(<http://pi-dht22.s3-website-us-east-1.amazonaws.com/>)**

- Utilized DHT22 sensor and Raspberry Pi to gather temperature and humidity data, then utilized API to post data to backend Rails server hosted on AWS EC2 instance
- Utilized ReactJS at front-end to display data in line-chart format and deployed on AWS S3

### **Live Chat App(<http://34.200.149.58:3004>, login:admin1/admin2, password: foobar)**

- Utilized ActionCable to handle WebSocket connections on the server side, to implement message broadcast function
- Utilized CoffeeScript to implement AJAX on the client side to enable instant message function to enhance UX
- Utilized several tools to enhance UX, such as Markdown support, Keystroke function and At-mention notification

### **Yelp Comments Monitor App**

- Utilized Yelp APIs to monitor comments posting periodically and send out SMS message notification with twilio-ruby gem once new comments received.
- Provided options to avoid sending out notification on user-defined days
- Fetched authentication information directly from Linux environmental variable, reduced the risk of information leaking

### **Phone Book App(<http://34.200.149.58:3001/>)**

- Utilized React as front-end framework and Rails as back-end to achieve responsive web design effect.
- Designed fully functional CRUD APIs in Rails Controller to enable data transfer between React and Rails Model
- Integrated React with Rails by designing Rails CRUD APIs and utilizing react-rails gem
- Utilized bootstrap-sass gem to integrate Bootstrap with React, improved UX by enriched UI

### **Content Management System App(<http://34.200.149.58:3002/>)**

- Developed a CMS which retrieves a template from a database and renders it as an HTML page that can be viewed at user-defined path
- Customized the resolver with cache expiration mechanism and utilized nested hash to optimize performance
- Customized controller directly from ActionController::Metal, which optimized App performance by excluding unnecessary functionalities

## **Programming Design Project, Project Leader**

January 2009 – May 2009

*Computer Programming Design Course, University of Toronto*

- Rebuilt the game AddEmUp under C environment with an additional artificial intelligence game play mode
- Demonstrated leadership skills in the design team, and assigned individual tasks to team members to efficiently manage project
- Utilized pointer, array, and file I/O in coding. Provided functionality including loading/creating game board, score counting, human and computer playability

## **EDUCATION**

### **Master of Science in Computer Science, New York Institute of Technology, Old Westbury, NY (2016, GPA 4.0/4.0)**

*Coursework: Computer Network, Database Systems, OS security, Data Structure, Software Engineering, Programming Language*

### **Bachelor of Engineering in Chemical Engineering, University of Toronto, Toronto, Canada (2013)**

*Coursework: Engineering Strategies & Practice, Engineering Economic Analysis, Statistics & Experimental Design, Team Strategies for Engineering Design, Data-based Modelling for Prediction and Control*

### **Associate Degree in Electrical Engineering Technology, Seneca College, Toronto, Canada (2008)**

*Coursework: Electronic Circuits, Microprocessors, Programming Fundamentals Using "C", Digital Systems*