

Ikwhan Chang (Matthew)

San Francisco Bay Area, California

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SUMMARY

Software Engineer more than five years of experience. Specialized in the **large-scale web service's** development. Continuously strive to find the modern web technologies and its delivery automation. My recent interests are modern JavaScript frameworks (React.js, Angular.js), frontend resource management, caching, security on HTTP, asynchronous data flow, microservice architecture (Docker, Kubernetes), continuous development, continuous delivery, development automation, hybrid cloud computing and software-defined network.

EXPERIENCE

Urhyme, San Francisco, CA (A **personal activity sharing** web service shows you how you spend time based on personal goals via charts.)

Founder & Software Engineer, Jan. 2016 – present

- Designed entire React.js' containers, Redux's actions, reducers, UI components like header, footer, content adjusted with responsive Bootstrap 4 from scratch.
- Developed the authentications and session management: Sign-in & up procedure based on O-Auth architecture, CORS, CSRF, JSON Web token-based Ajax requests, Facebook & Google social sign-in and user session management using redux-session.
- Developed the localizations and other frontend features: i18n localizations based on user's geolocation using Yaml file, Wizard-based user input forms using redux-form and async validations, Chart.js integration and Google AdSense & Analytics integration.
- Migrated whole prototype's functions from Angular.js to React.js within just three months.
- Developed entire micro RESTful API server using Play! Framework and Docker on the Google Kubernetes Engine
- Designed the entire continuous delivery pipelines that have auto testing, packing and delivering in the custom Docker image repository.
- Built the Kubernetes load balancer and container using YAML files and integrated with Google Cloud SQL proxy.
- Developed the authentications using JSON Web token on Redis, password encryptions using BCrypt and controller's token validator
- Developed social web features like TinyUrl based on AES Cipher, dynamic web page's Screenshot using a headless web browser, and file upload using Google Cloud Storage.
- Developed the database models and its asynchronous DAOs using Scala-slick, connected with Google Cloud SQL, and migrated to backend both primary DB and replicated DB
- Invited by several pitches (e.g., PlugAndPlay) and raised \$200K seed funds by South Korean company
- **Stacks:** Play! Framework, Scala, Play-Akka, Play-slick, MySQL (Cloud SQL), Google Kubernetes Engine, React.js (redux, redux-form, thunk, axios, moment.js, dropzone.js, x-editable), jQuery, SASS, ESLint, Bootstrap 4, Node.js, Webpack, Babel, ES6

Webcash Inc., Seoul, South Korea, FinTech (Financial Management)

Software Engineer, Aug. 2010 - Mar. 2012

- Integrated our wealth data analyzing web dashboard with Korean 5+ top financial companies' financial transactions.
- Managed the large-scale (**5M+ users**) online banking service of wealth data analysis and its visualization tools using Spring MVC.
- Operated the large-scale web payment system's reliabilities for gathering the tuitions for **10+** top Korean universities and **0.3M+** students.
- Developed the web payment system for gathering the payment between **1K+** pharmacists, manufacture, and customers.
- **Stacks:** Spring Framework, JSP, Hibernate, Freemaker, jQuery, JavaScript

Elancer Co., Ltd. Seoul, South Korea

Software Engineer, Mar. 2009 – Jul. 2010

- Developed the large-scale (10K+ daily users) freelancer matching web service's many frontends features like user authentication, product management, admin pages using JSP and jQuery on the Velocity, MyBatis, Spring MVC with Caucho's Resin WAS
- Operated and developed the big company's subsidiary website adding features like bulletin board, user management, log analytics, admin page and some Flex charts using Adobe Flex, ASP, C# and ASP.NET

EDUCATION

M.S. in Computer Engineering, San Jose State University, San Jose, CA Aug. 2015 - Dec. 2017

B.S. in Computer Science and Engineering, Chung-Ang University, Seoul, South Korea Mar. 2006 - Feb. 2015

PUBLICATIONS & ACADEMIC PROJECTS

Dani Project (Social Web Service) (2011, awarded on 1st prize with \$10K)

- Developed an Adobe Flex web service to share user's memorable roads using Google Map, Open Social, BlazeDS, and GAE

Image Compression Storage Policy for OpenStack Swift (Master's project, Software-defined Network, 2016)

- Added an image compression policy to OpenStack Swift's code and made it possible for an optimized resource server to be compressed simultaneously when the resource was uploaded.

Book: HTML5 and Mobile Web for Full-Stack Programmer, ISBN 9788960881327 (Korean)

- Used for key textbook of computer science for Samsung software course at Chung-Ang University (lecturer: Prof. Sungrae Cho)
- Dealt with basic of JavaScript, jQuery, CSS 3, HTML 5, Geolocation, Web Storage, Web Font, Canvas, Open API, OAuth.

Seoul World DJ Festival Website (2013, <http://www.wdjfest.com>)

- Developed festival website's frontend from scratch using Zurb Foundation, Bootstrap, PHP, RequireJS

Instructor, Junior Tutoring Program, Chung-Ang University, Seoul, South Korea

- Courses: Cloud Computing, C++ Programming, Java Programming

SKILLS

- **Languages & DB:** Java, Scala, JavaScript/ES6, JSP, MySQL, MariaDB, Oracle DB
- **Frameworks:** AngularJS, ReactJS, Node.js, Spring MVC, Play! Framework, Slick, Akka, Velocity, MyBatis, Hibernate
- **Cloud & Tools:** GCP, AWS, Docker, Kubernetes, OpenStack, Maven, Bower, NPM/Yarn, Git, Jenkins, Gitlab CI