Mikyung Lee

Software engineer

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https://aprillee11.github.io/profile/ (Homepage)
https://miki11.medium.com/ (Technical blog)

SUMMARY

A highly self-motivated software/web developer

RELEVANT EXPERIENCE

Axle Informatics, Rockville, MD - *Full Stack Developer,* FEB 2019 - OCT 2020

- NCATS (Research Support Service) front-end
    - Involved in building up the scheduler UI with AngularJS.
    - Involved in building web Restful API service with Spring and Hibernate
    - Performed Unit-testing in the Jasmine and Karma environment.
    - Actively involved in migrating the AngularJS app to Angular app.

Medical Science & Computing, Bethesda, MD - *Java Developer,* JAN 2016 - APR 2018

- UMLS Terminology Services (UTS) front-end
    - Initiated new UTS front-end UI using Angular and made significant achievements.
    - Resolved GWT (Google Web Toolkit) relevant issues.
- UMLS Terminology Services (UTS) back-end
    - Built and fixed Restful API using Hibernate with Criteria API and Named Query
    - Involved in database migration from Oracle to PostgreSQL.
- Data transformation
    - Implemented several large-scale source inversion scripts using Kettle (ETL) tool, such as SnomedCT, Rxnorm, Medicin, Medra and Mvs *etc.*

KyungHee University, Seoul, South Korea - *Doctorate Program,* MAR 2007 - JULY 2010

- CHESS (Stand-alone java application analyzing biological data)
  - Published in peer-reviewed journal, BMC Bioinformatics. CHESS(CgHExpreSS): A comprehensive analysis tool for the analysis of genomic alterations and their effects on the expression profile of the genome
  - Implemented alone from scratch 1) a threshold and SW-ARRAY algorithm based genomic alteration region detection module 2) a correlation analysis module for an integrative analysis of genomic alteration and gene expression, such as T-test, chi-square test, 3) a user-friendly interface and visualization modules using Java Swing and Graphics2d API.
- METASIS (Stand-alone java application to analyze biological data)
  - Implemented three state-of-art META statistical analysis methods such as T-based modeling, rank product and Fisher's inverse Chi-square method
- Herb safety information management system (Web-based database server)
  - Designed database schema and constructed database in MySQL
  - Built web server using Tomcat and JSP (Java Server Pages)

Pusan National University, Pusan, South Korea - *Master's Program,* MAR 2002 - FEB 2003

- Microarray analysis program (Standalone java program to analyze biological data)
  - Implemented entire microarray image processing modules such as image loading, spot location and spots intensity measurement.
  - Provided user-friendly interfaces and visualization modules using Java Swing & Graphics2d API
- Microarray management system (Web-based database server)
  - Designed database schema and constructed database in MySQL.
  - Built web server using Tomcat and JSP(Java Server Pages)
  - Published in Journal of Microbiology and Biotechnology. Design and implementation of system for gene expression data management and analysis (Korean)

EDUCATION

General Assembly, Washington, D.C. - *Web Development Immersive,* OCT 2018 - JAN 2019

KyungHee University, Seoul, South Korea - *Doctorate Degree,* MAR 2007 - JUL 2010

Pusan National University, Pusan, South Korea - *Master's Degree,* MAR 2002 - FEB 2003

TECHNICAL PROFILE

Language: Javascript, Typescript, Java

Frameworks: Angular, AngularJS, Spring, Hibernate, Express

Web: HTML, CSS, Node.js, React, jQuery

Database: Oracle, MySQL, PostgreSQL, MongoDB, SQL, Stored Procedure

Tools: Kettle, R, Git, Maven, NPM, AngularCLI

CERTIFICATE

AWS Cloud Practitioner, 2020

Microsoft Certified Professional Systems Engineer, 1999

Oracle - SQL and PL/SQL, Database Administration, 1999