

# HYUN SUK RYOO (MAX RYOO)

## Programmer and Data Scientist

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### EDUCATION

#### B.A. in Computer Science

##### University of Virginia

Aug 2016 – May 2020

Relevant Courses: Artificial Intelligence (CS 4710), Database Systems (CS 4750), Programming Languages for Web Applications (CS 4640), Machine Learning (CS 4501/4774), Algorithms (CS 4102), Computer Architecture (CS 3330), Program and Data Representations (CS 2150), Software Development Methods (CS 2110), Discrete Mathematics (CS 2102), Introduction to Programming (CS 1113), Intro to Data Science with Python (STAT 1559)

#### B.A. in Statistics (Biostatistics Concentration)

##### University of Virginia

Aug 2016 – May 2020

Relevant Courses: Statistical Machine Learning (STAT 5630), Data Visualization and Presentation (STAT 4310), Data Analysis with Python (STAT 3250), Introduction to Regression Analysis (STAT 3220), Elementary Linear Algebra (MATH 3351), Introduction to Probability (MATH 3100), From Data to Knowledge (STAT 3080), Introduction to Statistical Analysis (STAT 2120), Intro to Biology (BIOL 2100 & 2200), Intro to Data Science with Python (STAT 1559)

### EXPERIENCE

#### Software Engineer Intern

##### Fannie Mae (Capital Markets Treasury CASH TMS L3 Team)

Jun 2019 – Aug 2019 (3 Months)

Herndon, Virginia

- Project: Developed an end to end Dashboard to track all payment wire records for Fannie Mae in the Cash TMS team. The dashboard keeps tracks an average of net \$13 Trillion. Technologies used: Spring, MSSQLServer, Oracle, Java, Maven, HTML/CSS

#### Data Science Contractor / Database Developer Intern

##### S.W.I.F.T. (Innovation Lab / Database Development)

Jun 2018 – May 2019 (1 Year)

Manassas, Virginia

- Project: Developed a REST API for filtering and updating Security Violation logs. Technologies used: Node/Express.js, MongoDB, Python, SQLite3, HTML/CSS. Continued to work on this project as a Data Science Contractor incorporating Data Science techniques.

#### Teaching Assistant CS 4750 (Database Systems)

##### University of Virginia

Aug 2018 – May 2019 (10 Months)

Computer Science Department

- Teaching Assistant: Was a teaching assistant for CS 4750 Database Systems for two semesters. The class introduces fundamental concepts for design and development of database systems.

### RESEARCH

Interests: Machine Learning, Model Analysis, Quantitative Methods

#### Data Engineer

##### Measure of Cognitive Ability Research

May 2019 – Present

USC & UVA

- Developed a Web-server and Web-application to maintain and process data from Measure of Cognitive Ability (MOCA) tests. The purpose of this research project is to develop a measure of cognitive ability and its scale of cognitive ability.
- Technologies Used: AWS, Wordpress, MySQL, Python, Scikit-learn, R, Tidyverse
- Principal Investigator: Ji Hoon Ryoo

#### Undergraduate Research Assitant

##### Auditory Neurobiology Lab at UVA

Sept 2014 – Dec 2017

UVA

- Worked with classifying new protiens and DNA sequences that can be a lead cause of deafness in old age hearing loss
- Supervisor: Jung-bum Shin

### SKILLS

#### Programming Languages

Python    Java    JavaScript    TypeScript    C++/C  
R    SAS    SQL    PHP    LATEX    x86    Docker

#### Frameworks

Node/Express JS    Spring Framework    Angular

#### Libraries/Packages

Scikit-learn    Tensor Flow    Keras    AWS    Maven  
Tableau    Mathematica

#### Databases

Oracle    MS SQL Server    Mongo DB    MySQL  
Sqlite3

#### OS

Unix/Linux    Windows

#### IDE

Eclipse    IntelliJ    Anaconda    Jupyter Notebook  
Vim/Emacs    Visual Studio Code  
All Microsoft Office Suite

#### Languages

English    Korean

### PROJECTS

#### Full-Stack

##### KSEA at University of Virginia

- https://hyunsuk-ryoo.com/ksea

#### Web-developer

##### Saban Research Institute of C.H.L.A

- https://hyunsuk-ryoo.com/uscconsultation

#### Hackathon

##### Swift Company Hackathon

- Source Code: https://github.com/hyunsukr/SwiftEats
- Description: http://www.hyunsuk-ryoo.com/swifteats

#### Full-Stack

##### UVA CS 4640

- Source Code: https://github.com/hyunsukr/DeCo

### LEADERSHIP/EXTRA CURRICULAR

KSEA Vice President	May 2018 – Present
KSA Outreach Chair	Jun 2017– May 2018
Madison House Volunteer	Sep 2013– May 2018