

# Hyun Suk (Max) Ryoo

DATA SCIENTIST AND PROGRAMMER

EDUCATION	<p><b>University of Virginia</b>, Charlottesville, Virginia</p> <p><i>B.A. Computer Science,</i> Aug 2016 - May 2020 <i>B.A. Statistics (Biostatistics Concentration),</i> Aug 2016 - May 2020</p> <p><b>Compute Science Coursework :</b> Artificial Intelligence (CS4710), Database Systems (CS4750), Programming Languages for Web Applications (CS4640), Machine Learning (CS4501/4774), Algorithms (CS4102), Computer Architecture (CS3330), Program and Data Representations (CS2150), Software Development Methods (CS2110), Discrete Mathematics (CS2102), Introduction to Programming (CS1113)</p> <p><b>Statistics Coursework :</b> Statistical Machine Learning (STAT5630), Data Visualization and Presentation (STAT4310), Data Analysis with Python (STAT3250), Introduction to Regression Analysis (STAT3220), Introduction to Mathematical Statistics (STAT 3120), Elementary Linear Algebra (MATH3351), Introduction to Probability (MATH3100) , From Data to Knowledge (STAT3080), Introduction to Statistical Analysis (STAT2120), Intro to Data Science with Python (STAT1559)</p>
SKILLS	<p><b>Programming Languages :</b> Python, Java, C++, C, SAS, R, SQL, PHP, <math>\text{\LaTeX}</math>, x86, Docker, Javascript, Typescript</p> <p><b>Frameworks :</b> Node Js, Express Js, Spring Framework, Angular</p> <p><b>Libraries/Packages :</b> Scikit-learn, Tensor Flow, Keras, Tidyverse, Maven, AWS, Tableau</p> <p><b>Database :</b> Oracle, Microsoft SQL Server, MySQL, MongoDB, SQLite</p> <p><b>IDE :</b> Eclipse, IntelliJ, Anaconda, Jupyter Notebook, Vim, Emacs, Visual Studio Code, All Microsoft Office Suite</p> <p><b>Languages :</b> English (Fluent), Korean (Fluent)</p>
INTERESTS	Machine Learning, Model Analysis, Quantitative Methods, Learning Analytics
RESEARCH	<b>Research Student</b>
EXPERIENCE	<p><i>Advisor: Hudson Golino, Ph.D</i> May 2019 - Present</p> <p>- Research Student in areas of Machine Learning and Data Mining in Quantitative Psychology.</p> <p><b>Data Engineer for Measure of Cognitive Ability Research</b></p> <p><i>Principal Investigator : Ji Hoon Ryoo, Ph.D</i> May 2019 - Present</p> <p>- Developed a Web-server/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.</p> <p><b>Undergraduate Research Assistant</b></p> <p><i>Supervisor : Jung-bum Shin, Ph.D @ Lab: Auditory Neurobiology Lab</i> Sept 2014 - Dec 2017</p> <p>- Worked with classifying new proteins and DNA sequences that can be a lead cause of deafness in old age hearing loss</p>
TECHNICAL	<b>Software Developer</b>
EXPERIENCE	<p><i>Thinking With Tools, LLC</i> Dec 2019 - Present</p> <p>- Software Development</p> <p><b>Software Engineer Intern</b></p> <p><i>Fannie Mae</i> Jun 2019 - Aug 2019</p> <p>- Project: Developed a end to end Dashboard that tracks all Fannie Mae wire payments. The dashboard is integrated into the Capital Markets Treasury CASH TMS L3 Team. The dashboard keeps tracks an average of net \$13 Trillion wire transactions a year. The dashboard makes it easier for employees to track problematic wires and see transactions easier on a day to day basis.</p> <p>- Project: Automated the Deployment Processes of Applications to one click deployment</p> <p>- Project: Developed a REST API for Calendar Date Services and ID Services - Technologies Used: Spring, MS SQL Server, Oracle, Java, Python, Maven, HTML/CSS, JavaScript</p>

### **Data Scientist**

*SWIFT (Society for Worldwide Interbank Financial Telecommunication)* Aug 2018 - May 2019  
- Continuation of Intern project incorporating Data Science Methodologies to the project.

### **Teaching Assistant for CS 4750**

*University of Virginia (Computer Science)* Aug 2018 - Dec 2019  
- Course Description: Introduces the fundamental concepts for design and development of database systems. Emphasizes relational data model and conceptual schema design using ERmodel, practical issues in commercial database systems, database design using functional dependencies, and other data models. Develops a working relational database for a realistic application.

### **Database Developer Intern**

*SWIFT* Jun 2018 - Aug 2018  
- Project: Developed a REST API for filtering and updating Security Violation logs. The project included making an interface with html/css front end with a Node.js, Express.js, MongoDB back end along with a Python and sqlite3 processor.

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## **PERSONAL PROJECTS**

### **Web-developer**

*Korean-American Scientists and Engineers Association* Jun 2018 - Jan 2019  
- Built a website to alert the members on new upcoming events as well as to give information about the club to students of UVA. Built a sign up feature that automatically sends a the Admin a notification if someone registered.

### **Full Stack Developer**

*Saban Research Institute of C.H.L.A* Jun 2018 - Aug 2018  
- This project was to maintain a Web-Page for the Biostatistics Core at the Saban Research Institute of CHLA. This website is used to schedule and maintain appointments for the consultation service that is offered by the Core Program. Also, information about the Core and Events/Lessons are available on the webpage. There is also a contact page for people to freely contact whomever they need.

### **Hackathon**

*SWIFT* Jun 2018  
- This project was the award winning 1st Place project at the S.W.I.F.T(Society for the Worldwide Interbank Financial Telecommunication) Hackathon. The application is an online web-application where people in S.W.I.F.T can order food from anywhere in the building to easily facilitate their busy schedules. The README.md on the github link for this projet describes in full detail how to download and start using. This application can be used for any food company if they wanted to. Also a demo can be done on YOUR local computer if you follow the readme correctly. Go check it out!

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## **EXTRA CURRICULAR**

### **Vice President**

*Korean-American Scientists and Engineers Association* Jun 2018 - May 2019  
Organize special speakers in the Engineering and Science field. Create networking events for the students and faculty at UVA. Create social events for people to interact and bond with one another. Communicate with other organizations to plan events for the organization. Create tech events for the members to get hands on experience with technologies

### **Outreach Chair**

*Korean Students Associations* Jun 2017 - May 2018  
Communicate with other organizations to plan events for the organization. Help with creating culture showcases and expo for the greater UVA community

### **Volunteer**

*Madison House Volunteering & UVA hosptial Volunteering* Sept 2013 - May 2018  
Provided care for patients at the Emily Couric Clinical Cancer Center. Prepared surgical supplies for operations at the University of Virginia Medical Center. Sales Assistant at the Auxiliary Center at University of Virginia Medical Center. Volunteer experience of over 1,200 hours