Youngsik Yoon

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Education

Purdue University | Honors College — *West Lafayette, Indiana*

Bachelor's of Science in Computer Science Honors — *Aug 2017 - May 2021 (Expected)*

- GPA: 3.73/4.00
- Concentration: Machine Intelligence, Database and Information Systems, Software Engineering

Experience

Microsoft — *Redmond, Washington*

Software Engineering Intern — *May 2020 - Aug 2020*

- Created a media file viewer which parses live streaming assets and segmented archives using C and C++.
- Extracted all the boxes, metadata and media data from a stream of MPEG-4 ISO files and supported customer private extensions.
- Implemented a command line interface for the parser allowing customers to view the box partitions, query specific box properties, and segment files.

ExxonMobil — *Houston, Texas*

Software Engineering Intern — *May 2019 - Aug 2019*

- Assisting field engineers by building an iOS application to mobilize a .NET desktop project using Swift, Objective-C, and SQL.
- Increasing use cases for the application and saving 1 hour per usage which leads to a global average saving of $480,000 per year.
- Engaging with clients to identify business features, build a user-centered application, and practice agile software development.

Image Database Team, Continuous Analysis of Many CAMeras — *West Lafayette, Indiana*

Undergraduate Research Assistant under Yung Hsiang Lu — *Jan 2019 - Dec 2019*

- Design and assembled a storage system for real-time indexing of incoming surveillance streams and make it searchable.
- Constructed a command line interface, designed ER diagrams, setup the image-feature database, and ensured atomicity.
- Utilized MinIO Object Storage Database for incoming images, Vitess MySQL Database for feature storage, and Python for the interface.

Sandia National Laboratories — *Albuquerque, NM*

Software Developer Intern — *May 2018 - Aug 2018*

- Implemented a cluster-analysis model which grouped texts based on key terms or phrases through stemming and lemmatization using Natural Language Toolkit.
- Extracted training data from historical records to improve a K-means clustering algorithm by 6%.
- Created a data analysis and visualization web application tool on patent data using JavaScript, HTML, and Python.

Projects

Dollar for Dollar, VandyHacks V Hackathon A user-driven Alexa skill which streamlines grocery shopping by helping customers buy items, keep track of current deals, and compare prices. Built with Dollar General item database and Alexa Skills.

Sunshine, BoilerMake VI Hackathon A user-driven Alexa skill and web application that suggests clothing based off of weather and user preference to different weather conditions. Built with MongoDB stitch, TensorFlow.js, DarkSky API, and Alexa Skills.

Google Play Store App Data Analysis, Honors Project A statistical analysis of the scraped Google Play app store data to find trends and patterns related to the market to help developers. Built with R and used ANOVA and Welch two-sample t-test for analysis.

GeoTrash, EcoMake Hackathon A community-driven web application tool that collects different recycle bin location points. Built with Tornado, a web server written in Python, and Leaflet, a JavaScript mapping application.

Skills

Languages	Java, C++, C, Python, JavaScript, SQL, bash, Swift, Kotlin
Frameworks / Libraries	Spark, NodeJS, React, Cocoa
Other Technologies	Android Studio, Firebase, Amazon Web Services (Lambda, DynamoDB, Alexa Skills), git

Activities / Honors

2019	**Presenter**, Purdue Undergraduate Research Conference, Poster Symposium	*West Lafayette, Indiana*
2019	**Mentor**, MiniMake, Hackathon for Middle and High School Students	*West Lafayette, Indiana*
2018	**Sponsor Prize Winner**, VandyHacks V, Courtesy of Dollar General	*Nashville, Tennessee*
2018	**1st Place**, Sandia National Laboratories, TITANS Space Blimp Coding Challenge	*Albuquerque, New Mexico*

United States Citizen