

Yuhwan Lee

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EDUCATION

University of Maryland: College Park

College Park, MD

BSc in Computer Science and Statistics, GPA: 4.0/4.0

Aug. 2021 – May 2025 (Expected)

- Relevant Coursework: Data Structures, Algorithms, Compilers, Computer Systems (C/Unix/Assembly), Discrete Mathematics, Programming Languages (Haskell, OCaml, Racket)

EXPERIENCE

Yext

New York, NY

Software Engineering Intern

May 2023 – Aug. 2023 (Expected)

- Current Summer 2023 Software Engineering Intern for Yext on the Core Engineering team.
- Constructed an **Apache Airflow** DAG to sync **MySQL** data with a **Snowflake** table, enabling faster aggregation queries and enhancing data processing efficiency.
- Built and deployed **Prometheus**-based metrics and alerts to notify owning teams of time-based SLO breaches.

Capital One

College Park, MD

Software Engineering Intern

Jan. 2023 – May 2023

- Matured an **OpenSearch** SDK with machine learning (KNN) functionalities from a hackathon project to a production-ready Python package, enabling all Capital One associates to leverage semantic search capabilities.
- Implemented unit tests with an 80% code coverage to support agile test-driven development within the codebase.
- Developed an API using **FastAPI**, ensuring adherence to internal standards and facilitating efficient communication between different software components.
- Established a streamlined local development environment with **Postman** and custom **Docker** images.
- Orchestrated the deployment of the API and OpenSearch clusters on **AWS Fargate** using **Jenkins** and **Docker**

Software Engineering Intern

Sept. 2022 – Dec. 2022

- Implemented improvements and new features for Izby, and **enterprise Slack bot** that promotes the use of inclusive language, actively utilized by over 3000+ Capital One associates.
- Designed an API using the OpenAPI specification, and used **Flask** to prototype a working version of the API.
- Prototyped and implemented a new internal data model to allow for flexibility in future functionality expansions.
- Enhanced data storage capabilities by routing incoming event data to a **NoSQL** database (**DynamoDB**), designing the table according to **single table design** principles.

Leidos

Gaithersburg, MD

Software Engineering Intern

May 2022 – Aug. 2022

- Assisted in the effort to refactor the UI from AngularJS to **React** by implementing new features and fixing bugs.
- Developed scripts to **transform a large (over 300GB) dataset** for a data migration effort to Elasticsearch.
- Refactored **Java microservices** to read from and write to **Elasticsearch** instead of a SOLR database.
- Removed outdated and unsecure instances of slf4j from a Maven project to remediate log4j vulnerabilities.

PROJECTS

Social Media Posting Bot | Amazon EC2, Facebook Graph API, Twitter API, Reddit API, Python

- Successfully created a program to take trending posts from Reddit and post them onto social media platforms.
- Integrated the Reddit, Facebook, and Twitter **APIs** to download and upload image and video content.
- Deployed an Amazon **AWS EC2** instance to host and continuously run the program at regular intervals.
- Produced a successful Twitter account with **over 700 followers and 1 million impressions**

Tutoring Request Manager | Python, Webhooks, Amazon S3, Discord API

- Proposed and developed a Discord bot to manage incoming tutoring requests for Centennial High School's National Math Honor Society (NMHS), allowing NMHS members to respond to and accept tutoring requests.
- **Utilized by over 50 student/tutors** throughout the pandemic, allowing for a smooth continuation of tutoring.

TECHNICAL SKILLS

Proficient: Python, Java, Flask, FastAPI, Elasticsearch/OpenSearch, DynamoDB, React, HTML/CSS/JS, C, Git
Experience with: EC2, S3, Maven, OCaml, Racket Bootstrap, Jira, Agile, Microservices, Jenkins, AWS Fargate