Peter Yoon

jonghyeokyoon19@gmail.com | linkedin.com/in/jhyoon19 | San Jose, CA | (619) 772-0251 | github.com/peterjhyoon

WORK EXPERIENCE

SAP

Software Engineer - Data Products | Jun 2025 - Present   *Palo Alto, CA*
- Architected and built a robust AI agent–driven synthetic data generator using LangGraph, LangChain, Ray, and FastAPI to generate a million rows of synthetic data in minutes with referential integrity for E2E performance testing of data pipelines
- Achieved up to a 98% reduction in staging data ingestion time, from over 8 hours to 11 minutes, by migrating data ingestion Spark job from Structured Streaming to Batch processing and optimizing ingestion logic
- Optimized batch ingestion performance by up to 20% by developing a runtime-adaptive algorithm to maximize resource utilization while preventing Out Of Memory errors compared to the prior static approach

Software Engineer Intern | Jan 2025 - Jun 2025   *Newport Beach, CA*
- Designed and developed a modular Spark job unifying data ingestion across 2 different data acquisition services in SAP Business Data Cloud, consolidating previously disparate ingestion processes and reducing developer maintenance by 50%
- Prototyped an LLM-driven data generation using Python FastAPI, React and Tailwind that dynamically produces millions of synthetic data entries in minutes for performance testing; presented to the wider engineering org for adoption in testing
- Streamlined large-scale data transformation workflows in SAP Business Data Cloud by designing and developing reusable components of a PySpark-based plugin framework, leveraging state management and integrated into production workflows
- Improved developer productivity by automating linting and adding integration tests for 95% code coverage on spark jobs

UC San Diego IT Services

Student DevOps Engineer | Jan 2024 - Dec 2024   *San Diego, CA*
- Reduced student major data provisioning times by 35% through ETL data processing with Python and Apache Airflow
- Improved Grouper logging resource deployment times by 85%, from 35 minutes to 5 minutes, by migrating manually created AWS resources (EC2, S3, EFS, IAM, Security Group) for the Splunk logging architecture to Terraform deployment
- Streamlined Grouper AWS infrastructure configuration by constructing a Terraform CI/CD pipeline with Atlantis

RapidSOS

Software Engineer Intern | Jun 2024 - Sep 2024   *New York, NY*
- Reduced deployment costs by 64% by migrating CI/CD artifact triggers of the Emergency Data Exchange (EDX) code release pipelines from polling to event-based mechanisms and alleviating year-old technical debt
- Developed a serverless event-driven Proof of Concept (PoC) to track prolonged Emergency Communication Center (ECC) websocket disconnections using AWS Lambda, DynamoDB and S3 with the Python SDK and Docker

Kewtea Korea

Software Engineer Intern | May 2023 - Aug 2023   *Seoul, South Korea*
- Decreased monthly overhead costs by 32% by creating customer task automation workflows and building an interactive ChatBot API using Machine Learning to summarize task status upon user request
- Reduced workflow processing times by 50% by developing an intermediary REST API server using Python FastAPI to automate workflow triggers and log statuses in a MySQL database hosted on a GCP VM

LEADERSHIP EXPERIENCE

Staff Sergeant, Republic of Korea Air Force | Aug 2021 - May 2023   *South Korea*
- Led an 80 Airmen squadron as a Squad Leader and translated intelligence meetings between the U.S. and Korean Air Forces

TECHNICAL SKILLS

Languages: Python, SQL (MySQL, PostgreSQL), C/C++, Java, JavaScript, CUDA, ARM Assembly, MATLAB
Backend/Data: AWS, PySpark, Apache Airflow, Kafka, Terraform, LangGraph, LangChain, FastAPI, Docker, Kubernetes, Git, Bash
Frontend: React.js, React Native, Tailwind CSS, HTML/CSS, Bootstrap, Jest

EDUCATION

University of California, San Diego   Jun 2025
B.S. Mathematics-Computer Science (GPA: 3.6/4.0)   San Diego, CA