Leiwen (Max) Lin

Senior Software engineer | U.S. Citizen | U.S. Navy Reservist
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PROFESSIONAL SUMMARY

Results-driven Software Engineer with 5+ years' experience developing scalable cloud-based applications and data-driven solutions. Architected a React-Flask application to forecast financials for trillion-dollar assets. Reduced operational costs by implementing an OData API to link RESTful APIs and databases. Expertise in Python, JavaScript, AWS, and Agile principles. Seeking a high-growth organization to leverage full-stack skills and make an immediate impact.

SKILLS

Languages: Python, JavaScript, Java, C#, HTML/CSS, Scala
Frameworks/Databases: Flask, Conda, PyTest, React, Express.js, Material UI, Jest, Airflow, Databricks, Spring Boot, Maven, Gradle, Junit, Apache Spark, Hive, Snowflake, MongoDB, DynamoDB, Redis, Amazon RDS, Oracle Database
Tools/Technologies: OpenAI API, Langchain, jQuery, Nginx, Apache Tomcat, Gradle, Docker, Jenkins, Git, AWS, Jest
Certifications: AWS Certified Developer - Associate (Validity: March 2026), Databricks Certified Data Engineer Professional (Validity: September 2026)

WORK EXPERIENCE

The Federal Home Loan Mortgage Corporation (Freddie Mac) McLean, VA
Senior Financial Software Developer *Jan. 2019 - Present*

- Led a 5-person team to deploy a scalable cloud application using Agile and CI/CD principles, delivering core financial services functionalities; recognized for project and team management skills.
- Built a high-impact CI/CD pipeline for a scalable, critical risk management system processing real-time big data streams, achieving 60% faster deployment, and improving reliability, reducing production issues by 40%.
- Developed a Snowflake query tool to automate string generation for dynamic selection, filtering, aggregation, and customizable downloads, boosting the analytics team's output by 50% by streamlining data analysis/reporting processes.
- Designed and built a React front end with a Flask back end for critical business planning and Dodd-Frank stress tests, enabling forecasting for trillion-dollar assets, liabilities, revenues, and expenses.
- Replaced external solutions by implementing an OData API to link RESTful APIs and databases, enabling dynamic Tableau visualization queries and updates.
- Used Boto3 and PySpark to migrate hundreds of terabytes of binary objects from SQL Server to S3, replacing binary columns with S3 references, achieving a 99%-time reduction over traditional methods.
- Created an IAM/Ping token-based authentication service with in-memory caching to improve performance and security.
- Implemented an Apache Kafka message queue for user-defined subscription rules such as progress monitoring and error alerts, decoupling workflows and routing events, enhancing microservice event handling and system scalability.
- Interviewed 100+ candidates, mentored 10+ newly hired developers, and hosted daily Scrum sessions including stand-ups, sprint backlog grooming, and retrospectives, improving on-time feature delivery by 15%.

The Federal Home Loan Mortgage Corporation (Freddie Mac) McLean, VA
Quantitative Analytics Intern *Jun. 2018 - Dec. 2018*

- Replaced manual handling with automation for over 1,500 model documents and data comparisons using Python and web automation, slashing task time by 90% and enhancing data governance and risk management processes.
- Developed a Python library with Excel APIs for automated formatting and dashboard creation in Excel, improving data presentation and streamlining reports.

EDUCATION

The George Washington University **Washington, DC**
Master of Science - MS, Business Analytics (Data Engineering) *Aug. 2017 - Dec. 2018*

Tunghai University **Taiwan**
Bachelor's degree, Economics and Computer Science *Sep. 2012 - Jun. 2017*