

# Sean Jung

Software Engineer | Data Scientist | Active TS/SCI | U.S Military Veteran

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#### **TECHNICAL SKILLS**

- Python|Java|Javascript|C++|C| React|Streamlit|Django|Flask|Terraform|skaffold|RESTful APIs|FastAPI|
- AWS | Google Cloud | PyTorch | TensorFlow | scikit-learn | SQL | PostgreSQL | Jupyter | Kubernetes | Docker | AlloyDB
- LLMs | Data Structures & Algorithms | K-NN | Machine Learning | Decision Trees | Computer Vision | Agile

#### **EXPERIENCE**

## Software Engineer - Al and Automation ...... Aug 2024 – Present

Google LLC | Google Public Sector | Seattle, WA, USA

- Deployed Google's GenAl for Enterprise (GENIE) platform via Google Kubernetes Engine for a public education client, enabling customized LLMs with retrieval-augmented generation using LangChain and Vertex AI. Utilized Terraform and skaffold for cloud infrastructure configuration based on the project's CI/CD standards.
- Currently developing a data pipeline for extracting a knowledge graph from multiple, unstructured data sources using Vertex AI to create a comprehensive personalized learning system - implemented through Neo4j and GCS.

## Software Engineer - Space Weather & Helio-Analytics ...... Jan 2024 – June 2024

NASA Jet Propulsion Laboratory | Caltech | Pasadena, CA, USA

- Implemented an ETL data pipeline for 87GB+ of geomagnetic data from NASA's OMNIWeb and SuperMAG databases for training machine learning models to predict space weather patterns and its effect on U.S power infrastructure, resulting in an LSTM model with a >95% precision. (2<sup>nd</sup> Place - UW ENGINE Competition 2024)
- Delivered a React.js frontend for displaying project research and analytics with an interactive Plotly dashboard.

## Facilities Engineering & Acquisition Division Director ...... Aug 2022 – Jun 2023

Naval Facilities Engineering Command | Naval Support Facility Deveselu | Deveselu, Olt, Romania

Refactored the internal C-based control software within a critical HVAC unit for the Navy's \$1.2B Aegis Ashore Missile Defense System to enhance reliability, increasing system performance by 132% via convex optimization.

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Naval Facilities Engineering Command | Joint Base Pearl Harbor-Hickam | Honolulu, HI, USA

Improved Navy's Microsoft SQL Server database and its data management processes during Hawaii's Red Hill Fuel Contamination Crisis, improving emergency response times by 34% from the central crisis info center.

#### **PROJECTS**

## SEMANTIC SEGMENTATION | INT. SOCIETY FOR PHOTOGRAMMETRY AND REMOTE SENSING

Designed and implemented a FastCNN, ResUNet, and transformer-based neural network that delineates public structures through visual segmentation using digital aerial images, reaching a +85% accuracy within 10 epochs.

#### **HOME PRICE PREDICTOR | ZILLOW**

Deployed L1 & L2 regression models to predict housing prices, based Zillow datasets (e.g location, sq ft., lot size), and created data visualization using Plotly, Folium, & Bootstrap under Django framework with AWS EC2.

#### LOAN VIABILITY | LENDING CLUB

Developed a decision tree classifier using scikit-learn to determine bank approvals for 1412 Lending Club loan applications, based an individual's loan amount, credit score, delinquency history, and 7 other features.

#### FOOD PRODUCT REVIEWS | AMAZON

Created a logistics regression model using scikit-learn and seaborn to quantify and categorize the emotional sentiment of 1251 Amazon product reviews for evaluating the success of a given Amazon product.

#### **EDUCATION**

Class of 2024 **University of Washington** M.S in Electrical Engineering (Data Science) – GPA: 3.9 **United States Naval Academy B.S in Naval Architecture & Marine Engineering** – Top 25% Class of 2015

#### **CERTIFICATES & LICENSES**

Professional Engineer (PE) – State of Washington and Oregon Project Management Professional (PMP) – Agile and Scrum Methodology ID: 23014628 / ID: 99743PE

ID: 3012182