Jeonghwan (Daniel) Lee

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EDUCATION AND CERTIFICATION

GEORGIA INSTITUTE OF TECHNOLOGY, *Atlanta, GA*
Masters of Science: *Computer Science* **Anticipated Date of Graduation**: Dec 2026

UNIVERSITY OF CALIFORNIA, BERKELEY, *Berkeley, CA*
Bachelor of Arts: *Data Science* **GPA**: 3.8 **Graduated**: May 2023

SOCIETY OF ACTUARIES (SOA)
Associate of the Society of Actuaries (ASA) **Certified:** Apr 2025

TECHNICAL SKILLS

Tech Stack: Python, PyTorch, AWS EC2, react/Next.js, SQL, MS Excel/VBA

PROFESSIONAL EXPERIENCE

Blue Shield of California, *Oakland, CA*
Actuarial Analyst, Experienced (Small Group Pricing) *Apr 2023~Present*

- Identified and resolved errors in the forecast regression model by optimizing data input methods relative to each plan, resulting in a ~$5M improvement in prediction accuracy and directly impacting ongoing pricing decisions
- Designed and implemented a neural network using PyTorch to classify potential patients for risk adjustment coding, improving the accuracy of identifying high-risk cases and streamlining the previous manual coding process
- Developed and deployed a generalized linear regression model using scikit-learn, leading to data-driven RAF factor optimizations for Non-GI groups and increased organizational revenue by $356,000
- Initiated the improvement of the efficiency of SAS/SQL data pull code and reduced the overall run-time by 35%

AAA (CSAA), *Walnut Creek, CA*
Actuarial Intern (Pricing Design) *May 2022~Aug 2022*

- Performed competitive analysis on Accident/Violation surcharges utilizing InsurQuote and S&P Rate Filings and suggested multiple rate calculation feature improvements for the upcoming pricing cycle
- Developed GLM with feature selection and regularization that predicted claim frequency with a R squared value of 0.87
- Deployed an automation program that extract base rates from a 100K+ value matrix through recursive backtracking

UBS, *San Francisco*
Wealth Management Intern *Jun 2021~Dec 2021*

- Updated fund averages and compared them to competitive funds using resources such as S&P Global and Bloomberg
- Underwrote periodic Know Your Client Reviews by verifying client information, equity, and source of income

humanID (Cybersecurity Startup), *Remote*
Sales and Business Development Intern *May 2020~Aug 2020*

- Designed and created a CRM/sales tracker that automatically updates values and action items on Google spreadsheets
- Analyzed historical trends of multiple sales reports and forecasted the number of return calls with a 89% precision

PROJECTS

AI Insurance Agent - multi-agent health insurance assistant *Apr 2025~Present*

- Developed using LangGraph and GPT-4o to guide users in plan selection, risk assessment, and policy understanding.
- Implemented state-based graph architecture with specialized agents for underwriting, actuarial analysis, RAG retrieval
- Integrated Pinecone vector database and Tavily Search API for hybrid retrieval in the RAG and research agents.
- Applied Pydantic schemas for output validation, schema-constrained reasoning, and agent handoff alignment

rapGPT 2.0 - multimodal rap lyric generator *Feb 2025~May 2025*

- Pretrained a 124M-parameter GPT-2-based language model for rap lyric generation using PyTorch, handling dataset extraction, preprocessing, model architecture coding, and optimization.
- Fine-tuned the model using a self-implemented LoRA adapter to emulate Eminem's lyrical style, and evaluated output quality using a BERT-based classifier for style and coherence validation
- Optimized inference performance by integrating KV caching, Flash Attention, and quantization, achieving ~30% reduction in latency, enabling efficient deployment on CPU-only AWS instance
- Developed a full-stack application with a FastAPI backend deployed on AWS EC2 and a React/Next.js frontend

Retinal Disease Classifier - Vision-Based Medical Diagnosis System *Jan 2025~Mar 2025*

- Created a hierarchical classification computer vision model that classifies diseases based on retinal images with a disease identification recall of 85% and disease classification accuracy of 82%
- Coded Effnet and Vision Transformer models to train models from scratch and evaluated performance with Tensorboard
- Reduced model size with an average inference time of 0.5 sec to deploy model on hugging face spaces using Gradio