Joanne Kim

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Education

University of Florida **May 2025**
Bachelor of Science, Computer Science *GPA 3.87/4.0*
Bachelor of Science, Mathematics *Gainesville, FL*
Cum Laude, Honors Program, Dean's List, AI Scholar 2023

Relevant Coursework

- Data Structures & Algorithms, Database Systems, Operating Systems, Fundamentals of Machine Learning, Linear Algebra, Engineering Statistics, Number Theory, Abstract Algebra, Real Analysis and Advanced Calculus

Technical Skills

Languages: C/C++, Java, Python, TypeScript, JavaScript, SQL
Frameworks/Libraries: React, Node.js, Next.js, Django, PyTorch, TailwindCSS
Tools & Infrastructure: Git, Docker, PostgreSQL, Redis, Kafka, Google Cloud, VS Code, CI/CD, Linux

Experience

Valkyrie Enterprises **Feb 2026 – Present**
Software Engineer *Remote*

Bank of America **Jul 2025 – Feb 2026**
Software Engineer *Dallas, TX*

- Architect modular Python/Pandas ETL framework with config-driven transforms for automated weekly reporting
- Debug and restore Python automation script, recovering 4h daily time savings in manual testing workflows

University of Florida, College of Veterinary Medicine **Mar 2023 – Dec 2024**
Machine Learning Research Assistant *Prof. Jon Kim*

- Co-author "Deep Learning-Assisted Canine Lymphoma Classification" submitted to Veterinary Clinical Pathology
- Write PyTorch model & preprocessing code to diagnose lymphoma in ~1000 images with Convolutional Neural Networks
- Identify tumor biomarkers by training classification models and using statistical feature selection methods in scikit-learn
- Leverage high-performance computing for large-scale data processing and optimize model training in medical domain

GE Appliances, a Haier company **Jan 2024 – May 2024**
Software Engineering Co-op *Louisville, KY*

- Responsible for design, implementation, and testing for LED oven Sabbath Mode using object-oriented C
- Develop state machines based on module requirements and employ the Model-View-Presenter design pattern
- Write and run integration tests on physical units adhering to Test-Driven Development and CI/CD practices
- Collaborate with cross-functional teams to ensure alignment with user needs and industry standards

Projects

ParkMark | *React, Express, PostgreSQL* **Jan 2025 – Feb 2025**

- Design and develop responsive React/TailwindCSS UI from scratch, featuring interactive Mapbox interface
- Architect SQL database schema and compose efficient queries to reduce API consumption rate
- Configure serverless infrastructure using Google Cloud Run, Storage, OAuth, and Managed SQL
- Automate data processing by writing Python scripts that extracts and expands National Park Service geospatial data

Crescendo | *Next.js* **Mar 2025 – Apr 2025**

- Create classical music chatbot leveraging Retrieval Augmented Generation (RAG) on vector database Pinecone
- Pre-process and generate text embeddings with OpenAI API and perform semantic searches on ~1,000 records
- Integrate Vercel AI SDK with Next.js application for seamless chatbot experience with multiple topics

Ray Tracer | *C++* **Nov 2024 – Jan 2025**

- Use linear algebra and computer graphic concepts to build a ray tracer generating results in ppm format image
- Design classes for 3D vector space objects and render multiple entities with anti-aliasing techniques to smooth the curves