

# DAIYONG KIM

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## PROFESSIONAL SUMMARY

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Data-driven Software Engineer & MSCS Candidate (Machine Learning) with over 15 years of experience in large-scale data processing and high-performance system architecture. Expert in bridging statistical modeling with production-grade deployment, with deep domain expertise in Kia's diagnostic telemetry (KTUS) and Samsung's ML data pipelines (65M+ records). Proven ability to deliver business insights through scalable API development and automated data wrangling.

## TECHNICAL SKILLS

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**Data Science & ML:** Python (Pandas, NumPy, Scikit-learn, PyTorch, TensorFlow), Statistics, NLP, Deep Learning, Matplotlib, Seaborn

**Data Engineering:** SQL (PostgreSQL, SQLite), Big Data Pipeline, Offline-first Data Sync Engine, AWS (Lambda, API Gateway, DynamoDB)

**Languages:** Python, Java, Kotlin, C/C++, SQL

**Tools & Methodologies:** GitLab, Jira, CI/CD, Docker (Virtual Environments), TDD, Agile/Scrum

## EXPERIENCE

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### Sr. Software Engineer

Sep. 2023 – Present

*GIT America, Inc.*

*Irvine, CA*

- Engineered an integrated diagnostic service (**KTUS**) for Kia's PDI process, analyzing workflow data to **reduce average inspection time by 10% to 20%**.
- Architected a robust offline-first synchronization engine processing **25GB of daily diagnostic telemetry data**, ensuring data integrity for regional business intelligence workflows.
- Spearheaded the SDLC of a diagnostic application for Galaxy Tab, implementing automated reporting to accelerate warranty support data cycles.

### Sr. Software Engineer

Feb. 2022 – May 2023

*HSBC*

*Vancouver, BC, Canada*

- Designed scalable APIs for Zelle P2P payment integration serving **1.5M+ users**, driving a **15% increase in MAU** through optimized mobile-cloud communication data flow.
- Enhanced modular libraries for global analytics and accounting components, ensuring data consistency across a team of 30+ developers.
- Mentored teams on TDD and engineering best practices to improve code reliability for mission-critical financial data.

### Sr. Software Engineer

Mar. 2010 – Sep 2019

*Samsung Electronics, Mobile Communications,*

*Suwon, South Korea*

- Led the development of In-Vehicle Infotainment (IVI) solutions including Car Mode, optimizing data processing for MirrorLink 1.1 standards under resource-constrained environments.
- Architected performance-critical Native C++(JNI) modules for 3D Video Player, leveraging OpenGL ES to optimize rendering data pipelines.

## DATA SCIENCE PROJECTS

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### Spatial Analysis: Starbucks vs. Ediya (Major South Korean Coffee Franchise)

2024

- Performed comparative spatial analysis of 1,000+ store locations to validate the "Starbucks Proximity" strategy of **Ediya, a leading South Korean coffee franchise**.
- Engineered data preprocessing pipelines to refine unstructured text data and utilized **Pandas (pivot\_table, groupby)** to analyze store density by district.
- Implemented advanced statistical visualizations using **Seaborn (KDE plot)** to identify geographical distribution patterns and market saturation.
- Developed interactive geospatial visualizations using **Folium**, utilizing **GeoJSON** for Choropleth maps and **CircleMarkers** with dynamic sizing based on store counts.
- Identified optimal business insights by merging geographical datasets to calculate district-wise centroids for competitive benchmarking.

EDUCATION

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<b>Georgia Institute of Technology</b> <i>Master of Science in Computer Science, specialization in Machine Learning</i>	Atlanta, GA <i>Jan 2025 - Aug 2028 (Anticipated)</i>
<b>Chonnam National University</b> <i>Bachelor of Computer Science and Statistics</i>	Gwangju, South Korea <i>Mar. 1997 – Aug 2001</i>
<b>Hanyang University</b> <i>Master of Computer Software Engineering</i>	Seoul, South Korea <i>Mar. 2002 – Feb 2004</i>