

# DAIYONG KIM

949-343-8946 | [daiyongg.kim@gmail.com](mailto:daiyongg.kim@gmail.com) | [linkedin.com/in/kim-daiyong/](https://linkedin.com/in/kim-daiyong/) | [daiyongkim.com](http://daiyongkim.com)

## PROFESSIONAL SUMMARY

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

**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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|---|----------------------|
| <b>Sr. Software Engineer</b><br><i>GIT America, Inc.</i>  | Sep. 2023 – Present  |
| Irvine, CA  |                      |
| • Engineered an integrated diagnostic service ( <b>KTUS</b> ) for Kia's PDI process, analyzing workflow data to <b>reduce average inspection time by 10% to 20%</b> .                         |                      |
| • Architected a robust offline-first synchronization engine processing <b>25GB of daily diagnostic telemetry data</b> , 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.   |                      |
| <b>Sr. Software Engineer</b><br><i>HSBC</i>   | Feb. 2022 – May 2023 |
| Vancouver, BC, Canada   |                      |
| • Designed scalable APIs for Zelle P2P payment integration serving <b>1.5M+ users</b> , driving a <b>15% increase in MAU</b> 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.   |                      |
| <b>Sr. Software Engineer</b><br><i>Samsung Electronics, Mobile Communications,</i>  | Mar. 2010 – Sep 2019 |
| 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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|--|------|
| <b>Spatial Analysis: Starbucks vs. Ediya (Major South Korean Coffee Franchise)</b>   | 2024 |
| • Performed comparative spatial analysis of 1,000+ store locations to validate the "Starbucks Proximity" strategy of <b>Ediya, a leading South Korean coffee franchise</b> .             |      |
| • Engineered data preprocessing pipelines to refine unstructured text data and utilized <b>Pandas (pivot_table, groupby)</b> to analyze store density by district.                       |      |
| • Implemented advanced statistical visualizations using <b>Seaborn (KDE plot)</b> to identify geographical distribution patterns and market saturation.                                  |      |
| • Developed interactive geospatial visualizations using <b>Folium</b> , utilizing <b>GeoJSON</b> for Choropleth maps and <b>CircleMarkers</b> 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>	Atlanta, GA
<i>Master of Science in Computer Science, specialization in Machine Learning</i>	<i>Jan 2025 - Aug 2028 (Anticipated)</i>
<b>Chonnam National University</b>	Gwangju, South Korea
<i>Bachelor of Computer Science and Statistics</i>	<i>Mar. 1997 – Aug 2001</i>
<b>Hanyang University</b>	Seoul, South Korea
<i>Master of Computer Software Engineering</i>	<i>Mar. 2002 – Feb 2004</i>