Junwoo Jang, MSc

U.S. Permanent Resident (Green Card)
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EDUCATION

University of Colorado Boulder, Boulder, CO — August 2022 – May 2024
Master of Science in Computer Science — **GPA: 3.86**

Texas Tech University, Lubbock, TX — August 2019 – May 2022
Bachelor of Science in Computer Science and Minor in Mathematics — **GPA: 3.57**

SKILLS SUMMARY

- **Programming Languages:** Python, SQL, C, C++, C#, PowerShell, Java, JavaScript, Shell Script (Bash), and Visual Basic.
- **Technical Skills&Projects:** Project Management, (Self)Supervised/Unsupervised Machine Learning, Computer Vision (Pattern/Image recognition/classification/segmentation), Big Data Analytics (AWS Lambda, MongoDB, Apache Hive/Spark), Product Roadmap/Development, Agile Development, SaaS, DevOps, Github Actions&Git Commands, Unix/Linux, HTML/CSS, UI/UX, QA.
- **Languages:** Bilingual in English and Korean.

EXPERIENCE

GM Ultium Cells, Lansing, Michigan — May 2024 – Current
Vision Inspection Engineer

- Analyzed images of Battery Cells to discover defective cells and NG points (Line/Pin-Hole/Drag/Island), and Identified the root cause of equipment failure, by analyzing the Production Data, in order to improve the accuracy of Inspection Machine.
- Managed set-up scheduling to establish Vision Inspection System, such as Fab-In, CDA, H/W installation & LAN cabling, and Led the maintenance of vision equipment performance, to prevent quality issues and maximize output in compliance with safety.
- Supported Battery Factory Automation to enhance equipment efficiency via Siemens Programmable Logic Controller (PLC) by applying Smart Factory System, representatively Autonomous Calibration within Honeywell Web Gauge.
- Interacted with equipment technology and production team to optimize Manufacturing Process, and Verified facility production capacity to enhance Operation Quality and to satisfy SAT standards with the goals driven by KPI.
- Deep understanding of EV(electric-vehicle) battery cell manufacturing, Automotive Engineering & Machine Vision Engineering.

BellEat, Boulder, Colorado — August 2023 – May 2024
Software Engineer

- Participated in the entire Software Development, using Angular, and Conducted market analysis for market trends and customer needs/user-research to set product direction.
- Connected the frontend to backend using REST APIs and the backend to the firebase to store real-time live data, and Designed User Interfaces & Use Cases with Figma.
- Managed product lifecycle using Jira, integrated with GitHub, to ensure delivery timeline, and Continued monitoring product performance to maintain software quality based on test cases.

Motorola Solutions, Westminster, Colorado — May – August 2023
Data Science Intern

- Visualized data from Microsoft cloud-based SQL database (Microsoft Azure) with Power BI/Tableau, presenting performance of PremierOneCAD with 99 percentile for data summary to stakeholders, and Analyzed highly complex data patterns (Data Mining).
- Collected large-scale datasets, Cleaned out the bad data for database maintenance/database management, and Fine-tuned the databases structures by rearranging the 1:1, 1:N, N:M relationship between the database tables for balanced data integration.
- Reviewed software requirements and code to meet the timeline and quality standards, and Deep understanding of CI/CD pipeline, Daily Deployment&Smoke Testing, and Automation Process.
- Collaborated with Software Engineers and Managers (cross-functional) to improve system performance and Streamlined the processing workflows for data access by optimizing SQL queries for Computer Aided Dispatch, Mobile, and Records systems.

Data Science with Statistics and Probability, University of Colorado Boulder — August – December 2022
Teaching Assistant

- Conducted comprehensive assessments of assignments and exams, and provided constructive feedback, fostering student growth and excellence in Data Science Skills (Statistical Computing/Methods,Matplotlib[Data Visualization],LaTeX,Jupyter Notebooks).
- Collaborated closely with instructors to establish grading rubrics and assessment guidelines to ensure consistency of evaluations.

Data Science Research, Texas Tech University — May 2021 – May 2022
Research Assistant

- Conducted Research on linear/data regression, set builder syntax, semantics, and logic-based-AI-statistics concepts, Performed experiments, via statistical hypothesis and inference test, through quantitative analysis method, and Transcribed CStats for evaluation (peer-review for publication).
- Fine-tuned (model training) and Evaluated machine learning models by utilizing industry-standard libraries (scikit-learn,NumPy,pandas,PyTorch) & Oracle Database to conduct extensive hyperparameter optimization.
- Implemented data-centric methodologies and Managed model assessment procedures, by referring performance metrics such as accuracy, efficiency, precision, recall, and F1-score, to measure model effectiveness.