

# Junwoo Jang, MSc



U.S. Permanent Resident (Green Card)

Lansing, MI 48933 | Open to Relocation | 806-999-7592 | [Junwoo.Jang@colorado.edu](mailto:Junwoo.Jang@colorado.edu)

[linkedin.com/in/junwoojang/](https://www.linkedin.com/in/junwoojang/) | portfolio: [hangrycoding.github.io/junwoojang](https://hangrycoding.github.io/junwoojang)

## 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, and Visual Basic.
- **Technical Skills&Projects:** EV Battery Manufacturing Automation, (Self)Supervised/Unsupervised Machine Learning, Deep Learning & Computer Vision (Pattern/Image recognition/classification), NLP(spacy, Apache Spark), Big Data Analytics (AWS Lambda), Teaching & Data Science Research, Project Management, Agile Development, SaaS, Github Actions&Git Commands, Unix/Linux.
- **Languages:** Bilingual in English and Korean.

## EXPERIENCE

**GM Ultium Cells** (j.v: General Motors and LG Energy Solution), Lansing, Michigan

May 2024 – Current

*Vision Inspection Engineer*

- Analyzed images datasets 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 to improve the accuracy of Deep Learning Models.
- 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.
- Managed set-up scheduling to establish Vision Inspection Machines, 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.
- Interacted with OEMs, 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, Machine Vision Engineering & Automotive 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 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 the 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, 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 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*

- Collaborated closely with instructors to set grading rubrics and assessment guidelines using LaTeX to ensure consistency of evaluations.
- Conducted comprehensive assessments of assignments and exams, and provided constructive feedback related to Statistical Computing, Matplotlib, and Jupyter Notebooks.

**Data Science Research**, Texas Tech University

May 2021 – May 2022

*Research Assistant*

- Assisted Research (CStats) on linear/data regression and logic-based-AI-statistics concepts, Performed experiments through statistical hypothesis and inference test, using quantitative analysis method, and Transcribed CStats for evaluation.
- Implemented data-centric methodologies and reviewed model assessment procedures with performance metrics such as accuracy, efficiency, precision, recall, and F1-score to measure model effectiveness.
- Developed a deep understanding of modeling and reasoning, various frequency concepts, and the application of discrete math to data science.