

JIAQI WANG

CAREER TARGET: EHS Engineer | Safety Engineer

15591791168 | 15591791168@163.com | CPC Member | Class of 2027

PORTFOLIO: <https://www.wjq-space.com> AI-built site documenting internships and safety-regulation learning



EDUCATION

Liaoning Technical University | M.Eng. in Safety Engineering

2024.09-2027.06

- **Research Focus:** Ventilation safety, ventilation optimization, and process safety.
- **Relevant Coursework:** New Energy Safety Engineering, Safety Engineering Research Methods, Intelligent Mine Ventilation Theory, Mine Ventilation Simulation, Optimization Theory and Methods, and Numerical Analysis.
- **Honor:** Third-Class Academic Scholarship, 2025-2026.

Dalian Jiaotong University | B.Eng. in Safety Engineering

2019.09-2023.06

- **Relevant Coursework:** Safety Systems Engineering, Safety Assessment, Fire and Explosion Protection, Safety Testing, Industrial Ventilation and Dust Control, Machinery and Special Equipment Safety, Fire Protection Engineering, and Safety Management.
- **Campus Leadership:** Served as class activities coordinator for four years, organizing group activities and supporting communication and coordination.
- **Honor:** University Third-Class Scholarship, 2020-2021.

INTERNSHIP EXPERIENCE

Beijing NAURA Microelectronics Equipment Co., Ltd. | Facilities Operations Intern

2026.03-2026.09

Familiar with EHS systems in semiconductor manufacturing, facilities safety workflows, and cleanroom work practices.

- **Risk Assessment and Tiered Control:** Collaborated with electrical, HVAC, gas, and water engineers to identify and classify facilities risks. Applied **SCL** to equipment and facilities and **JHA** to routine tasks; referenced national hazard and accident classification standards, used the **LS method**, and updated **87 risk points (9 Grade A, 28 Grade B, 25 Grade C, and 25 Grade D)**, with engineering, administrative, PPE, and emergency controls by risk level.
- **Hazard Inspection and Closure:** Participated in **56 daily and special inspections** covering facilities areas, gray areas, cleanrooms, electrical safety, lightning protection, and flood control; independently identified and drove closure of **62 safety hazards**. Maintained the hazard register and verified closure through owners, actions, due dates, acceptance status, and before-and-after photographs.
- **Regulatory Compliance:** Reviewed **Safety Colours and Safety Signs (GB 2894-2025)** and converted requirements into inspection and corrective-action criteria. Verified and supported updates for electrical shock, mechanical injury, hot-surface, and confined-space warnings, totaling **81 safety signs**.
- **Hazardous Work Control:** Reviewed permits and pre-job briefings for hot work, work at height, confined spaces, and temporary electrical work; checked work classification, conditions, qualifications, safeguards, and approvals. Coordinated **22 pre-job safety briefings** and applied **construction FMEA** for pre-task risk identification and control, with traceable records.
- **Emergency Drills:** Assisted in planning and participated in **7 scenario-specific drills** covering confined spaces, mechanical injury, special equipment, burns, falls, electrical fires, and electric shock; supported preparation, on-site coordination, photo records, reviews, and filing.
- **Incident Investigation and Root Cause Analysis:** Organized facilities incident investigation and review materials through four stages: event reconstruction, evidence verification, direct and indirect cause analysis, and corrective-action tracking. Applied **5W2H, 5 Whys, and fault tree analysis** to identify management causes and preventive measures.
- **Safety Training:** Supported weekly department safety meetings, case reviews, training, and examinations; completed **12 contractor induction training and assessment sessions** covering site rules, hazardous-work precautions, and cleanroom requirements. Contributed to **3 Safety Month activity modules** and a bank of approximately **70 safety questions**.
- **Energy Management External Audit:** Supported preparation for the **ISO 50001 and GB/T 23331-2020** external audit by helping define energy indicators, compiling efficiency projects, and checking **three categories of evidence**: annual energy data, operating records, and supporting documents. Maintained the audit checklist and tracked gaps, data definitions, and revisions.

Volkswagen Automatic Transmission (Tianjin) Co., Ltd. | EHS Intern

2025.01-2025.07

Familiar with EHS systems, safety inspections, environmental monitoring, hazardous chemicals, and hazardous-work controls in automotive manufacturing.

- **Safety and Fire Protection Closure:** Inspected machining areas, oil and chemical stores, and plant fire-protection facilities; checked work permits, chemical cabinets, emergency supplies, emergency lighting, and evacuation facilities. Compiled **56+ fire-hazard closure records** and maintained closure logs with before-and-after photographs.
- **Hazardous Chemical Identification:** Classified the hazards of **24 chemicals** under China's hazardous chemicals regulations, the 2015 Catalogue, and GB 30000 standards, producing a list to support storage, use, and risk control.
- **Hazardous Work Tracking:** Compiled daily work-at-height, confined-space, and hot-work data; verified risk level, time, location, workers, contractors, monitors, and approvers. Maintained the **daily hazardous-work register for 97 days**.
- **Environmental Monitoring and Hazardous Waste:** Performed **42 wastewater tests** covering **COD, NH3-N, TN, and TP** at the wastewater treatment station and assisted in coordinating hazardous-waste collection by an authorized service provider.
- **Management System Internal Audit:** Supported **ISO 14001 and ISO 45001** internal-audit preparation, including plans, schedules, clauses, departments, and personnel arrangements. The audit covered **16 departments**; assisted with evidence preparation, document organization, and issue recording.
- **Emergency Plan Updates:** Organized and updated **22 emergency drill and on-site response plans** covering substations, gas stations, oil and hazardous-waste storage, confined spaces, heat treatment, wastewater treatment, battery areas, and equipment rooms; completed classification, version control, and filing.

RESEARCH AND PUBLICATION

Bayesian Inversion of Mine Ventilation Network Resistance | First Author

2025.09-2026.06

- **Methodology:** Developed a full-network resistance inversion method integrating a **KNN data-driven prior, ventilation network forward solver (VNFS), and DREAM-MCMC posterior sampling** to address uncertain resistance parameters and the lack of uncertainty quantification in conventional methods.
- **Implementation:** Used **Python, NumPy, Pandas, and scikit-learn** for data processing, algorithm development, error analysis, and DE/PSO/GA benchmarks; used **Origin** for figures and **AutoCAD** for the ventilation network topology.
- **Results:** On a mine ventilation network with **189 branches**, achieved a mean relative resistance-inversion error of **6.29%**; **93.12%** of branches were within 15% error, outperforming benchmark algorithms.
- **Publication:** First-author SCI article, *Bayesian inversion of air resistance in mine ventilation networks*, *Process Safety and Environmental Protection (JCR Q1, CAS Q2 Top Journal, IF 7.8)*. DOI: [10.1016/j.psep.2026.109078](https://doi.org/10.1016/j.psep.2026.109078). Built capabilities in scientific computing, engineering data analysis, technical visualization, literature review, and academic writing.

PROFESSIONAL SKILLS

- **Certifications and Software:** CET-6 and C1 driving license; proficient in AutoCAD for engineering and research drawings and in Word, Excel, and PowerPoint for reports, data analysis, registers, and presentations.
- **EHS Practice:** Safety inspections and hazard closure, hazard identification and risk grading, hazardous-work and contractor management, chemical classification, environmental monitoring, emergency drills, incident analysis, and regulatory compliance.
- **Regulations and Management Systems:** Working knowledge of China's Work Safety, Fire Protection, Occupational Disease Prevention, Special Equipment Safety, Environmental Protection, Hazardous Chemicals, and Confined Space regulations; familiar with ISO 14001, ISO 45001, ISO 50001, and internal and external audit processes.