Principal / Senior Engineer, Data Analytics & Management, Technical Operations Management

Your tasks

At **AUMOVIO AESS**, we are building the next generation of automotive semiconductor solutions that enable safer, smarter, and more connected mobility.

We are looking for a highly motivated **Principal / Senior Engineer, Data Analytics & Management** to join our growing **Technical Operations Management (TOM)** organization. The role will drive manufacturing intelligence, test analytics, quality screening, analytics platform development, digital transformation, and operational excellence across the semiconductor product lifecycle.

Candidates with strong knowledge in semiconductor data analytics and tools, outlier detection methodology (e.g.: PAT, SBL, cluster defect analysis) and data infrastructure setup is highly preferred.

Key Responsibilities

- **Test Analytics & Quality Screening**
  - Own the test analytics strategy covering Wafer Sort (WS), Burn-In (BI) and Final Test (FT).
  - Develop advanced analytics solutions for yield learning, outlier detection, excursion monitoring, statistical screening, and quality monitoring.
  - Support implementation and optimization of quality screening methodologies including PAT, Statistical Bin Limits (SBL), dynamic guard-banding, clustering, and test escape prevention.
  - Collaborate with Product Engineering and Test Engineering teams to improve outgoing quality performance and reduce DPPM.
- **Analytics Platform Ownership**
  - Own the manufacturing analytics platform ecosystem, e.g. JMP, Power BI, Databricks, and yield related tools.
  - Define platform roadmap, governance, deployment strategy, and user adoption plans.
  - Establish best practices for analytics development, data governance, reporting standards, and engineering productivity.
  - Provide technical leadership for tool evaluations, vendor engagement, implementation, and user training.
- **Fabless Operations Systems & Tool Setup**
  - Define system requirements and integration strategies between Foundries, OSATs, MES, Quality Management Systems, and analytics platforms.
  - Drive standardization of manufacturing data flows, system interfaces, and engineering workflows.
  - Develop operational tools to support NPI, qualification, production ramp, and mass production activities, e.g. process release, deviation material management, change management.
- **Data Infrastructure & Automation**

Job ID
REF10480R

Field of work
Engineering

Location
Singapore

Leadership level
Leading Self

Legal Entity
AUMOVIO Singapore Pte. Ltd.

- Own end-to-end semiconductor manufacturing data ecosystem across wafer, assembly, test and quality operations.
- Design and manage manufacturing data solutions, including databases, ETL pipelines, dashboards, cloud architectures, and automated reporting systems."
- Develop automation solutions using Python, SQL, Power BI, VBA, and modern analytics technologies to improve engineering productivity.

Your profile

Required:

- Bachelor's, Master's, or PhD in Electrical Engineering, Electronics Engineering, Computer Science, Data Science, Statistics, or related fields.
- Minimum 5+ years (Senior Engineer) or 8+ years (Principal Engineer) of semiconductor industry experience in data analytics, analytics platforms and data architecture.
- Experience analyzing semiconductor manufacturing, yield, test, reliability, and quality datasets.
- Hands-on experience with STDF, ATDF, MES, manufacturing databases, and semiconductor data ecosystems.
- Self-motivated, hands-on team player with a strong ownership mindset, capable of delivering results in a dynamic and rapidly growing startup environment.
- Strong collaboration, communication, and interpersonal skills, with the ability to work effectively across global and multicultural teams.
- Excellent analytical and problem-solving skills, combining data-driven decision-making with sound engineering judgment.

Technical Expertise:

- Experience with Databricks, JMP, Yield tools or equivalent semiconductor analytics platforms.
- Experience with Statistical Process Control (SPC), PAT, SBL, outlier detection, clustering analysis, and quality screening techniques.
- Proficiency in SQL, Python, JMP, Power BI, Tableau, Excel/VBA, or equivalent analytics tools.
- Experience leading digital manufacturing, analytics platform, AI-based analytics or data transformation initiatives.
- Knowledge of ATE test operations and test methodologies.
- Understanding of semiconductor manufacturing flows including Wafer Sort, Assembly, Final Test, Reliability, and Quality operations.

Our offer

Ready to take your career to the next level? The future of mobility isn't just anyone's job. Make it yours! **Join AUMOVIO. Own What's Next.**

About us

Since its spin-off in September 2025 AUMOVIO continues the business of

the former Continental group sector Automotive as an independent company. The technology and electronics company offers a wide-ranging portfolio that makes mobility safe, exciting, connected, and autonomous. This includes sensor solutions, displays, braking and comfort systems as well as comprehensive expertise in software, architecture platforms, and assistance systems for software-defined vehicles. In the fiscal year 2024 the business areas, which now belong to AUMOVIO, generated sales of 19.6 billion Euro. The company is headquartered in Frankfurt, Germany and has about 87.000 employees in more than 100 locations worldwide.