

Brandon Lewis

Industrial AI & Digital Transformation

+49 1512 956 5727

Nationality: US-American

Aufenthaltserlaubnis (DE)

Arbeitsbewilligung EU/EFTA vorhanden

lewis.brandonk@gmail.com

www.linkedin.com/in/lewisbrandonk

Bilingual (Englisch/German C1)

Lindau, Bayern



PROFESSIONAL SUMMARY

Industrial AI professional with 15+ years of experience spanning industrial automation, machine learning, analytics, and technical consulting. Proven track record delivering Industry 4.0 initiatives from business case development through production deployment, including computer vision, predictive maintenance, industrial IoT, and AI-enabled decision support systems.

Combines deep operational understanding of manufacturing environments with modern data and AI capabilities to help organizations improve quality, reliability, productivity, and decision-making. Experienced working across the full lifecycle of industrial technology initiatives—from customer discovery and solution architecture through implementation, change management, and operational adoption.

SELECTED INDUSTRIAL AI PORTFOLIO

Industrial IoT-Data Platform

Designing a cloud-native industrial data platform integrating machine telemetry, historian data, quality systems, and maintenance workflows. Demonstrates scalable ingestion, data modeling, real-time analytics, and AI-ready manufacturing data architecture.

Technologies: AWS, Databricks, Spark Streaming, SQL, dbt, MQTT, OPC-UA

Predictive Maintenance Plattform

Developed a production-oriented predictive maintenance platform for turbofan engines using Hidden Markov Models and multi-sensor health-state classification. Provides Remaining Useful Life estimation, automated alerting, and condition-based maintenance recommendations.

Technologien: Python, FastAPI, AWS, scikit-learn, hmmlearn, n8n

AI-Powered Engineering Knowledge Assistant

Developing a retrieval-augmented engineering assistant capable of searching technical documentation, maintenance procedures, quality standards, and engineering knowledge repositories to support troubleshooting and operational decision-making.

Technologien: LangChain, Vektordatenbanken, LLMs, Python, AWS

PROFESSIONAL EXPERIENCE

Trinity Consultants, Seattle, USA — *Technical Lead Consultant*

Oktober 2024 - Dezember 2024 (Beratungsprojekt)

Led technical architecture development for a pharmaceutical energy-management initiative integrating utility consumption, renewable-energy tracking, invoice validation, forecasting, and regulatory

CORE COMPETENCIES

Industrial AI

Computer Vision, Predictive Maintenance, Machine Learning, Generative AI, Manufacturing Analytics, Industry 4.0

Data Platforms

Industrial IoT, Data Engineering, Cloud & Edge AI Deployment

Operational Excellence

Process Optimization, Quality Improvement, Decision Support, Reliability

Project & Implementation

Requirements Analysis, Stakeholder Management, Business Case Development, Projekt Management, Technical Consulting

TECHNICAL COMPETENCIES

Machine Learning & Analytics

Python, PyTorch, scikit-learn, Time-Series Analysis, Hidden Markov Models, NLP, Statistical Modelling, Computer Vision

Data Engineering & Infrastructure

AWS (SageMaker, Lambda, S3, Greengrass), Databricks, PySpark, PostgreSQL, MongoDB, Docker, SQL

Industrial Systems

OPC-UA, Ethernet/IP, IO-Link, Industrielle Sensorik, Image Processing, Edge Computing

AI & Automation

LangChain, Retrieval-Augmented Generation (RAG), Workflow-Automation, n8n

Development & Visualization

Git, Jira, Power BI, Plotly Dash, REST API

compliance requirements.

- Designed machine-learning-assisted invoice validation workflows targeting significant reductions in manual review effort
- Developed phased implementation roadmap and operational forecasting framework supporting enterprise energy-management objectives
- Produced validation documentation supporting regulated pharmaceutical operating environments

Denali Advanced Integration, Seattle, USA — Industrial AI Solutions Engineer

Januar 2023 - Juli 2024

Led solution architecture and implementation planning for industrial AI and automation initiatives across manufacturing environments. Worked directly with engineering leadership, plant operations, and executive stakeholders to identify opportunities for machine learning, computer vision, and industrial automation technologies.

Selected Achievements

- Developed a 3D laser-based inspection solution for Amazon Print-on-Demand operations, combining topographical measurement, computer vision, and automated sorting integration to improve quality control performance
- Designed computer vision inspection architecture for Airbus manufacturing operations, including imaging strategy, lighting specification, and automated surface-quality validation workflows
- Architected end-to-end industrial AI systems spanning sensor acquisition, cloud-based model training, edge deployment, operational dashboards, and long-term data storage
- Developed business cases and ROI models supporting investment decisions ranging from \$500K to \$3M in manufacturing automation initiatives
- Managed technical delivery across software development, procurement, installation, commissioning, and customer acceptance testing
- Served as primary technical liaison between customer stakeholders, software teams, automation engineers, and project leadership throughout project execution

Technologies: AWS, SageMaker, Greengrass, Computer Vision, PostgreSQL, MongoDB, Docker, Plotly Dash

Kauffman Hall, Seattle, USA — Data Scientist, Healthcare Analytics

April 2022 - Oktober 2022 (befristetes Arbeitsverhältnis)

Developed large-scale healthcare analytics solutions supporting hospital operational and financial decision-making.

- Built distributed healthcare analytics pipelines using Databricks and PySpark
- Automated recurring reporting processes, generating approximately \$130K in annual productivity savings
- Identified critical data-quality issues through statistical analysis of production data pipelines

EDUCATION

University of Washington, Seattle, USA **MSc Information Management**

September 2024 - August 2025

Concentrations: Consulting, Data Science, Product Management

Georgia Institute of Technology, Atlanta, USA **BSc Polymer & Fiber Engineering**

August 2006 - December 2010

Concentrations: Materials for consumer goods, manufacturing, quality control

Minor: Chinese

Study abroad and engineering internship in Shanghai, China (2010)

PROFESSIONAL DEVELOPMENT

Goethe Institute, Munich **Intensive German, B2-C1 Levels**

January 2026 - May 2026

Preparation for Goethe-Zertifikat C1, June 2026

30–40 hrs/week full-time study; Focus on workplace and technical competency in German

Independent Study, Data Science **MOOCs and non-profit consulting**

June 2017 - September 2018

Foundation for later professional development and applications of ML industrial automation solutions

INTERNATIONAL EXPERIENCE

Germany: Demonstration of industrial ML inspection solutions at Hannover Messe (2024)

Netherlands: 6-month project deployment, Vanderlande (2012)

China: Promotion from Engineering Intern to Foreign Intern Manager, Shanghai (2010)

BlackRock Financial Inc., Atlanta, USA — Product Data Scientist

September 2019 - Januar 2022

Supported enterprise automation and analytics initiatives across multiple business functions through data products, reporting systems, and process-improvement programs.

- Redesigned automation value-tracking methodology, increasing documented organizational impact from \$250K to more than \$5M annually
- Built centralized analytics infrastructure and executive-facing Power BI reporting used to prioritize automation investments
- Improved AI chatbot performance through NLP-driven behavioral analytics and customer-satisfaction measurement
- Founded and scaled an internal Data Science Community of Practice supporting over 100 practitioners

Early Industrial Automation Experience

Delivered automation, machine vision, robotics, motion control, and industrial engineering solutions across manufacturing, logistics, medical device, and consumer-products industries.

Gibson Engineering, Bridgeport, USA — Automation Sales Engineer

Februar 2015 - Juni 2017

Emerson/Branson Ultrasonics, Danbury, USA — Application Engineer

Januar 2013 - Februar 2015

Vanderlande Industries, Atlanta, USA — Project Engineer/Sales Engineer

Juli 2011 - Januar 2013

TEACHING & COMMUNITY-BUILDING

- Founded and led Data Science Community of Practice, BlackRock (2019–2022)
- Data Science Instructor, Flatiron School (2018–2019)
- STEM Mentor for disadvantage students, STEAMTruck (2018)

LANGUAGES

Englisch - native

German - C1 (Goethe-Zertifikat)

Spanish - C1

French, Chinese - B2

REFERENCES

Mr. Mike Dieterich — Sustainability Lead bei Trinity Consultants.
mike@miked Dieterich.com

Mr. Justin Long — Director of Industrial Automation, Denali Advanced Integration.
jlong@denaliai.com

Mr. Reid Stevens — Account Executive, Denali Advanced Integration
rstevens@denaliai.com

Mr. Tony Jones — Ehemaliger VP Process Automation, BlackRock Financial, Inc.
jamesanthonyjones@outlook.com