Dr. Peet Cremer

* 27/01/1988
Transistorfaret 9, 1396 Billingstad, Norway | +47 917 42 339
peet.cremer@gmail.com | Peet Cremer | @PeetCremer | Publication list

AI Technical Leader with deep expertise in machine learning theory and enterprise AI strategy. Combines strong analytical foundation with proven experience managing engineering teams (up to 15 developers) and architecting production AI systems. Currently leading enterprise adoption of cutting-edge AI development tools across 100+ engineers while staying deeply hands-on in technical development.

~~Work experience~~ KEY TECHNICAL ACHIEVEMENTS

- Led enterprise adoption of advanced AI development tools (Cursor, Gemini Code Assist) across 100+ developers with reported significant productivity gains
- Pioneered application of computer vision algorithms to automotive perception systems, resulting in 10 patents covering training of radar perception algorithms, data storage, and fleet management
- Managed up to 15 developers across multiple teams while maintaining only 2 customer-impacting incidents over 1 year
- Architected production ML systems for building industrial knowledge graphs within an enterprise-scale data platform
- 7 peer-reviewed publications in Statistical Physics demonstrating strong research and analytical capabilities

WORK EXPERIENCE

Principal Engineer – Atlas AI — COGNITE (Oslo, Norway) — 02/2025 - today

~~Leading technical innovation in AI evaluation and productivity tooling at Cognite's Atlas AI division. Driving the development of comprehensive evaluation frameworks to measure the performance of industrial AI agents and underlying natural language processing tools.~~ **Strategic Role Transition**: Moved from engineering management to hands-on technical leadership to drive AI innovation during this pivotal transformation period. Leading technical strategy for AI evaluation frameworks and enterprise AI adoption.

- **Enterprise** AI ~~**Evaluation Frameworks**~~**Strategy**: ~~Architecting and implementing evaluation systems to measure Atlas AI industrial agents and NLP tools interfacing with Cognite's data platform~~
- ~~**AI Productivity Tools:** Leading~~ Architected organization-wide adoption of cutting-edge AI development tools ~~including~~ (Cursor, Bolt, Claude Code, Gemini Code Assist, and Model Context Protocol ~~(MCP) servers~~ servers), expanding usage across 100+ engineers with teams reporting weeks-to-days productivity improvements
- **AI Evaluation Innovation**: Designing comprehensive evaluation frameworks for industrial AI agents and NLP tools interfacing with Cognite's data platform
- **LLM Technical Leadership**: Led benchmarking of state-of-the-art models (Anthropic, OpenAI, Google, DeepSeek) for industrial knowledge graph applications, directly informing Atlas AI architecture decisions. Delivered external benchmark report providing industry insights on LLM performance for industrial AI applications
- **Cross-functional** ~~**Leadership**~~**Collaboration**: ~~Collaborating~~ Coordinated with Legal, Security, and Procurement teams to ensure compliance, risk mitigation, and successful tool rollouts~~across the engineering organization~~
- ~~**Strategic Implementation:** Managing~~ . Managed end-to-end procurement processes and ~~conducting~~ conducted training sessions to maximize ~~tool adoption and~~ adoption effectiveness

Recognized by CEO Girish Rishi ~~for contributions to AI tooling strategy in company-wide communications and LinkedIn posts~~ in LinkedIn posts for AI tooling strategy leadership and Atlas AI engineering innovation.

Senior Director of Engineering — COGNITE (Oslo, Norway) — 02/2024 - ~~2~~02/2025

~~Senior~~ Strategic engineering leadership role ~~overseeing multiple teams and strategic initiatives across Cognite's engineering organization. Led both technical excellence and organizational growth during a critical expansion phase.~~ combining organizational growth with AI initiative development. Gained executive perspective on enterprise AI transformation while maintaining technical involvement.

- ~~**Team Leadership**~~**Strategic Expansion**: ~~Managed 10-15 developers across multiple teams focusing on data integration, data connectivity, and AI initiatives~~
- ~~**Global Expansion:** Spearheaded hiring strategy and execution~~ Designed and executed hiring strategy for Cognite's ~~new~~ India Center of Excellence, ~~defining~~ establishing staffing plans and ~~establishing engineering operations in Bengaluru~~ engineering operations for 20+ roles. Contributed to successful inauguration of India Center of Excellence supporting Cognite's global expansion strategy
- ~~**Strategic Product Development**~~**Engineering Leadership**: ~~Collaborated on product strategy development for Contextualization services~~ Managed 10-15 developers across data integration, connectivity, and AI initiatives during critical company scaling phase. Maintained only 2 customer-impacting incidents across those team's services over 1 year while scaling teams
- **Product Strategy**: Collaborated on Contextualization services roadmap, aligning technical ~~roadmaps~~ architecture with business objectives
- ~~**Organizational Culture:** Contributed to culture building initiatives and engineering best practices across the broader organization~~
- ~~**Technical Architecture:** Provided strategic technical guidance on data platforms, ML systems, and engineering workflows~~

Director of Engineering — COGNITE (Oslo, Norway) — 02/2023 - 02/2024

Engineering management role ~~with dynamic team growth and strategic organizational challenges. Successfully scaled team from 5 to 18 developers while maintaining technical excellence and delivery commitments .~~ focused on people leadership, technical planning, and team development. Stepped up to manage additional teams during organizational transitions when multiple Engineering Managers departed.

- **Team Stabilization**: Absorbed responsibility for multiple teams during management transitions, scaling from 1 to 3 teams (up to 18 developers) while maintaining delivery commitments and service reliability
- ~~**Rapid** **Team** **Scaling**~~**Recovery**: ~~Grew engineering organization from 1 team of 5 developers to 3 teams totaling 18 developers at peak, with typical management span of 10-15 direct reports~~ Transformed inherited struggling team from red-yellow to yellow-green health metrics by enabling Cognite's support team to triage customer requests and creating documented guardrailed escalation processes, significantly reducing engineering team stress
- **Technical** ~~**Focus Areas**~~**Leadership**: Led teams specializing in contextualization of industrial data, data-driven troubleshooting applications, and parsing of engineering diagrams
- ~~**Organizational Flexibility**: Adapted to fluctuating team structures and filled gaps across multiple initiatives while maintaining one stable core team~~
- ~~**Strategic Leadership**: Balanced aggressive growth targets with quality delivery and team development during a critical expansion phase~~

~~Demonstrated ability to manage complex organizational dynamics while delivering on ambitious technical roadmaps.~~

Senior Machine Learning Engineer and Tech Lead — COGNITE (Oslo, Norway) — 08/2021 - 02/2023

Technical leadership role building production ML systems for building an industrial knowledge graph. Combined hands-on development with cross-functional team leadership.

- ~~Leading a~~ Led cross-functional team of 5 software/ML engineers implementing intelligent algorithms
- ~~Implementing intelligent algorithms to find context in otherwise unstructured industrial data~~ Architected and maintained microservices deploying ML algorithms in SaaS environment. Included a diagram parsing service, a named entity recognition service, and a service for annotation storage
- ~~Scaling and maintaining microservices to deploy those algorithms in an SaaS setting~~
- ~~Creating~~ Created data infrastructure capabilities ~~to build up an industrial knowledge graph~~ enabling advanced graph queries and industrial reality interactions

AI Lead Developer — APTIV (Wuppertal, Germany) — 12/2020 - 07/2021

Technical innovation leadership in automotive AI applications. Combined deep ML expertise with practical deployment experience.

- ~~Planning and execution of Machine Learning and Data Infrastructure projects in the automotive industry~~ **Automotive AI Innovation**: Led breakthrough work applying vision-based perception algorithms to automotive radar, using LiDAR as reference sensor. Implemented the training dataset creation process, deploying a pointcloud autolabeling algorithm, and creating a robust data preprocessing and augmentation mechanism
- ~~Design of AI solutions~~ Led planning and execution of ML and data infrastructure projects for automotive perception tasks ~~. Guiding the software and hardware integration into the test vehicle~~
- ~~Participated in a lot of innovation , leading to 7~~ Contributed to significant innovation pipeline, resulting in 10 patents and 1 publication (see publication list) covering training of radar perception algorithms, automotive data storage, and fleet management systems

Software Development Expert — APTIV (Wuppertal, Germany) — 07/2017 - 12/2020

Built comprehensive data infrastructure and ML pipeline foundation for automotive sensor data, enabling advanced AI research and development capabilities.

- ~~Leading development of a~~ **Data Platform Engineering**: Built end-to-end data platform for ~~storage and retrieval of~~ automotive sensor data~~as a product owner~~ , including recording tools for vehicle sensors, storage infrastructure, labeling systems, and preprocessing workflows
- ~~Development of infrastructure solutions for artifical intelligence in automotive applications~~ **Microservices for ML Inference**: Established microservice architecture for automated inference processing, enriching incoming data with algorithm-generated insights as new sensor data is uploaded
- ~~Established a microservice architecture to automate AI workflows~~
- ~~Supervision of a MasterThesis on using~~ **Technical Mentorship**: Supervised Master's thesis on GANs for automotive data style transfer

EDUCATION

Ph.D., Theoretical Soft Matter Physics — University of Düsseldorf

2013 - 2017

Strong Theoretical Foundation: Deep understanding of statistical systems, numerical optimization, and mathematical modeling. Research background provides analytical rigor and quantitative problem-solving skills that transfer effectively to AI/ML leadership roles.

- ~~Topic~~Dissertation: Mesoscale modeling of magnetic elastomers and gels ~~– theory and simulations~~
- ~~Solving magneto-elastic coupling models using numerical simulations, the finite element method,~~ using finite element methods and density functional theory
- ~~Resulted in~~ 7 ~~publications in recognized~~ peer-reviewed ~~journals~~ publications (see publication list) demonstrating research depth and scientific communication skills

M.Sc. Physics (GPA: 1.1/4.0[1]) — University of Düsseldorf

2012 - 2013

~~**Gpa: 1.1** (grades at german university range from 1.0 (best) to 4.0 (worst)). Minor: Mathematics Focuson~~ Focus: Soft Matter, ~~Plasma Physics, Solid-State and Nanophysics Master thesis :~~ Statistical Physics. Minor: Mathematics. Master thesis on "Emergent states in active systems" ~~was published as a journal article~~ published in peer-reviewed journal, demonstrating early research impact and theoretical depth.

B.Sc. Physics (GPA: 1.2/4.0[1]) — University of Düsseldorf

2008 - 2012

Gpa: 1.2 (grades at german university range from 1.0 (best) to 4.0 (worst)). Minor: MathematicsBachelor thesis : "Orientational fields in Plastic Crystals" was published as a journal article. Strong foundation in mathematical modeling and computational physics. Bachelor thesis published as journal article, showing consistent research excellence from early career.

SKILLS

ACHIEVEMENTS, HONOURS, AND AWARDS

PROJECTS I CONTRIBUTED TO AS MANAGER OR INDIVIDUAL CONTRIBUTOR

Research Internship (DAAD RISE Scholarship)

COGNITE, Oslo, NorwayYale University, USA

0207/2025 2010 - 0410/20252010

Collaborated with a colleague to finetune large language models for enhanced natural language querying (NLQ) performance on Cognite's industrial knowledge graph. Created curated datasets of NLQ problems with ground truth answers to improve model accuracy for industrial data contexts.

Developed specialized training datasets for industrial domain NLQ tasks

Implemented model finetuning pipelines and evaluation frameworks

Achieved measurable improvements in query accuracy and relevance for industrial use cases
Work was highlighted by CEO Girish Rishi in a LinkedIn post showcasing Atlas AI capabilities. COGNITE, Oslo, Norway02/2025 – 04/2025Led comprehensive benchmarking initiative to evaluate state-of-the-art LLM models on Cognite Atlas AI capabilities, focusing on natural language querying (NLQ) and Document Question Answering (DQA) for industrial knowledge graphs.

Evaluation Infrastructure: Designed and implemented scalable benchmarking systems with hundreds of curated test cases

Multi-vendor Analysis: Evaluated models from Anthropic, OpenAI, Google, DeepSeek, and Mistral across instruction-tuned and reasoning variants

Strategic Impact: Analysis directly informed LLM selection decisions for Atlas AI agent architecture
Delivered external benchmark report providing industry insights on LLM performance for industrial AI applicationsSelected for DAAD RISE Worldwide scholarship for research internship at Yale University. Conducted laboratory experiments on optical properties of butterfly wings and developed theoretical models for optical behavior, demonstrating early research capabilities and international experience. COGNITE, Oslo, Norway03/2025 – 06/2025Spearheaded organization-wide adoption of AI-powered development tools to enhance engineering productivity. Led comprehensive evaluation, procurement, and implementation strategy for cutting-edge AI coding assistants and development platforms.

Tool Evaluation: Assessed Cursor, Windsurf, Bolt, Claude Code, Gemini Code Assist, and Model Context Protocol (MCP) servers for enterprise readiness

Procurement Leadership: Managed end-to-end procurement process including legal compliance, security risk assessment, and vendor negotiations

Cross-functional Collaboration: Coordinated with Legal, Security, Architecture, and Procurement teams to ensure regulatory compliance and risk mitigation

Change Management: Conducted training sessions and rollout strategies to maximize adoption and effectiveness across engineering teams [1]*German grading system: 1.0 (best) to 4.0 (worst)*

Recognized by CEO Girish Rishi in a LinkedIn post highlighting contributions to engineering innovation. COGNITE, Oslo, Norway06/2024 – 12/2024Led strategic hiring initiative for Cognite's new engineering center in Bengaluru, India. Developed comprehensive staffing strategy and execution plan for establishing a center of excellence focused on AI and industrial data platforms. TECHNICAL

SKILLS & LANGUAGES

Core Programming	Python (Expert, 10+ yrs) · C++ (Expert, 10+ yrs) · Rust (Advanced, 2 yrs) · TypeScript (Advanced, 2 yrs)
AI/ML Specialization	PyTorch (2+ yrs) · TensorFlow (2+ yrs) · LangChain · RAG · Vector Databases · Support Vector Machines · Gradient Boosting · Model Evaluation · Model Context Protocol (MCP)
Mathematical Foundation	Statistical Analysis · Numerical Simulations · Mathematical Modeling · NumPy/SciPy (Expert) · Scikit-learn (2+ yrs)

Engineering Leadership	Technical Team Leadership · Strategic Hiring & Talent Acquisition · Enterprise AI Strategy & Implementation · AI Productivity Tooling Adoption · Cross-functional Collaboration · Operational Excellence · Production ML Systems
Infrastructure & Tools	Docker · Kubernetes · PostgreSQL · MongoDB · Azure · GCP · FastAPI · Microservices · Linux · Cursor · Claude Code · Gemini Code Assist
Languages	German (native) · English (C1) · Norwegian (B2) · French (A2)

~~**Strategic Planning**: Designed staffing plan and organizational structure for new engineering center from ground up~~

~~**Hiring Process Development**: Created job descriptions, interview processes, technical assessments, and take-home assignments for 20+ engineering roles~~

~~**Execution Leadership**: Distributed hiring pipelines across management team and maintained regular progress tracking against hiring goals~~

~~**Cross-team Coordination**: Collaborated with local and international teams to ensure seamless integration and knowledge transfer~~

~~Contributed to successful inauguration of India Center of Excellence supporting Cognite's global expansion strategy.~~

TEACHING & KNOWLEDGE SHARING

Lecturer on Artificial Intelligence

COGNITE, Oslo, Norway04/2023 - 08/2023

Vector similarity lookup service build on top of the Weaviate vector database

Enables to retrieve relevant context for LLM queries to enable an industrial chatbot and code completion experienceCOGNITE, Oslo, Norway06/2022 - 08/2022

Creating a backend to store symbols and process lines extracted from engineering diagrams in an industrial knowledge graph

Implemented in Python and Typescript and interfaces to COGNITE's internal flexible data modeling service

Allows for advanced graph queries on the knowledge graph and, thereby, enables advanced interactions with the industrial reality COGNITE, Oslo, Norway08/2021 - 06/2022

Implemented a REST API to store label information on files within COGNITE's data warehouse

Went from design to fully productive usage with SLAs in less than a year

~~11/2020 - 12/2020~~

~~Deployed a 3d bounding box detection network on Nvidia Jetson Xavier hardware~~

~~Optimizations and tweaks to make an automotive detection network fast enough to run live in the test vehicle APTIV, Wuppertal, Germany06/2020 -~~ 10/2020

~~Runtime environment written in Rust for live execution of AI algorithms in test vehicles for demo purposes~~

~~Main contributions: Preprocessing from the raw sensor data into the TensorFlow network input, subsequent postprocessing of the network results into bounding boxes for visualization, as well as abstractions to allow for different combinations of sensors and networks APTIV, Wuppertal, Germany02/2020~~ - ~~03~~04/~~2020~~2021

~~Python / Rust tooling to download sensor data and ground truth from a data warehouse and refine it for neural network training~~

~~Sophisticated interpolation algorithm for 3d bounding boxes to arbitrary timestamps~~

~~Using HDF5 as final data exchange format~~ Designed and delivered 3 comprehensive lectures with exercises: Numerical Optimization (SOTA ML optimizers like Adam & Evolutionary Algorithms), Gradient Boosting, and Support Vector Machines. Demonstrates ability to

distill complex ML theory into teachable concepts. Co-Organizer, NorwAI 2022 Hackathon

08/2022 - 10/2022

Organizing and conducting a Led technical organization of Data Science hackathonin Trondheim with Cognite and researchers from NTNU

Finding a suitable dataset , defining a task , supervising the students during the event, and evaluating the contributions , including dataset curation, task definition, student supervision, and contribution evaluation.
University of Wuppertal, Germany10/2020 - 04/2021

Lecture "Artificial Intelligence Based Sensor Signal Processing for Autonomous Driving" held in collaboration with colleagues from APTIV

Prepared and held lectures and exercises about Numerical Optimization in Data Science, Support Vector Machines, and Gradient Boosting APTIV, Wuppertal, Germany03/2019 - 09/2019

Supervised a master student on using GANs for automotive data style transfer

Created artificial LiDAR data by modding the video game GTA: V, then trained a GAN on real LiDAR data to do the domain transform

Tested and benchmarked this approach with a birds-eye-view 2D object detection model University of Düsseldorf, Germany2016

Supervised a bachelor student on the numerical simulation of magnetic gels University of Düsseldorf, Germany2013-2017

Lectures: Quantum Mechanics and Statistical Mechanics

Created homeworks and gave exercise classes

Answered student questions about the lecture topics

Designed and held oral and written exams

TARGET ROLES & KEYWORDS

Seeking: Staff Engineer, Principal Engineer, Technical Lead, AI Architect, Technical Director roles at technology companies with strong engineering culture. Open to hybrid remote positions in Norway or full remote opportunities.

ABOUT ME

Specializations: AI Strategy, Machine Learning Architecture, Technical Leadership, Engineering Excellence, Enterprise AI Transformation, Industrial AI Applications, Team Scaling, Production ML Systems.