

Highly skilled and innovative professional with a proven track record in designing, developing, and deploying cutting-edge AI and machine learning solutions. Proficient in Python, Objective-C, C, and C++ with a deep understanding of data structures, algorithms, and neural network architectures. Extensive experience in building and optimising complex AI models, including deep learning, natural language processing (NLP), and computer vision, to solve real-world problems and enhance business processes. Adept at leveraging data-driven methodologies, conducting advanced data analysis, and integrating AI solutions into large-scale enterprise systems. Recognised for strong problem-solving skills, collaborative teamwork, and ability to deliver high-impact, scalable solutions to drive operational efficiency and innovation. Committed to staying current with emerging AI technologies and trends, ensuring continuous improvement and excellence in AI application development.

Areas of Expertise

- Deep Learning Frameworks
- Machine Learning Algorithms
- Natural Language Processing (NLP)
- Data Preprocessing & Feature Engineering
- Collaboration & Communication
- Model Evaluation & Optimisation
- Programming Languages Expertise
- Team Collaboration & Coordination
- Data Visualisation
- Big Data Technologies
- Cloud Computing Platforms
- Statistical Analysis & Reporting

Professional Experience

Outlier AI

2024-present

Multi-lingual RLHF model tuning, German & English.

Master of Science in Artificial Intelligence, Thesis with Distinction, University of Leeds, Leeds, UK

2022 – 2024

Conducted in-depth research and analysis on advanced AI fine-tuning, achieving a distinction for thesis project. Designed, developed, and implemented machine learning models and deep learning architectures to solve complex problems. Utilised data preprocessing techniques to clean, normalise, and prepare large datasets for analysis and model training. Applied statistical methods and data analysis to identify trends, patterns, and insights in structured and unstructured data. Collaborated directly with Apple developers to ensure seamless integration.

- Improved model performance and local execution efficiency by porting LLMs to Apple’s MLX Framework, enabling optimised inference models on Apple Silicon devices.
- Successfully enhanced musical generation capabilities by fine-tuning a Large Language Model (LLM) to create intricate classical compositions, with a focus on works by Mozart and Scarlatti.

Developer, Institute for Snow & Avalanche Research, Davos, Switzerland

2022 – 2022

Established cross-platform compatibility across Windows, Linux, and macOS, expanding software accessibility and reach. Upgraded language framework from C++-98 to C++-2017, incorporating modern programming standards to boost code efficiency. Shifted build system from QMake to CMake, resulting in reduced build times and seamless cross-platform development. Conducted extensive code reviews and testing to ensure software quality and performance standards.

- Achieved greater simulation accuracy and improved performance for 3DSnow Avalanche Simulation Software.
- Modernised codebase for performance and maintainability by replacing over 2,600 outdated Qt 3.x framework references with standard C++, eliminating associated licensing costs.

Technical Workflow & Business Optimisation, ONVARIS GmbH, Germany

2018 – 2020

Collaborated with team every week to identify and address workflow bottlenecks, driving continuous process improvement. Analysed and optimised technical workflows to enhance operational efficiency and streamline processes. Collaborated with cross-functional teams to identify areas for improvement and implement effective solutions. Performed training sessions for team members on new technologies and optimised practices to promote adherence to best practices.

- Achieved 99% accuracy rate and reduced processing time by 20% through technical quality assurance for remote work requests.
- Increased 30% workflow efficiency and minimised manual intervention by designing and implementing custom macOS software solutions.

Technical Consultant & Founder, Penny Lane AG, Liechtenstein

2018 – 2019

Evaluated concept designs for a Bitcoin cryptocurrency installation in Norway, ensuring technical feasibility and adherence to regional regulations. Assessed power and cooling requirements to support optimal infrastructure performance. Oversaw

deployment and integration of new technologies, ensuring minimal disruption to client operations. Led market research initiatives to identify emerging trends and technologies, positioning company as a leader in industry.

- Achieved enhanced strategic decision-making and accurate forecasting through verification of business runtime models.
- Optimised hardware deployment speed and ensured scalability for future expansions by contributing to physical design input for containerised solutions.

Business Acceleration Analyst, ASPECTA Assurance AG, Triesen, Liechtenstein

2018 – 2018

Conducted in-depth technical environment assessment following corporate merger, identifying key integration points to ensure seamless IT infrastructure transition. Assessed existing corporate MPLS connections, ensuring adequate capacity for uninterrupted business continuity backups. Performed network survey encompassing routers and firewalls, identifying optimisation opportunities. Executed UNIX (HP) and Windows system surveys, uncovering and addressing system deficiencies.

- Improved backup reliability and mitigated risks associated with Oracle upgrades by rewriting and upgrading Oracle backup scripts in KSH.
- Contributed to operational efficiency by 15% through detailed technical analysis and recommendation report, following review and update of job scheduling platform to streamline automated processes.

Senior Project Manager, UPC SCHWEIZ GmbH, Wallisellen, Switzerland

2014 – 2017

Directed replacement of 4,000 amplifiers and upgraded 1,000 fiber nodes, significantly enhancing network reliability and service uptime. Supervised scoping, budgeting, and execution processes, ensuring timely project completion. Managed coordination with over 22 external subcontractors nationwide, upholding high-quality standards and effective collaboration for Upstreampegel Project (2016). Implemented Cisco Nexus Fabric Architecture, enhancing data center scalability and performance.

- Ensured minimal disruption during migration of PoC Data Center from Förrlibuckstrasse to Wallisellen.
- Achieved improved data bandwidth efficiency by optimising telemetry frequencies to meet MySports requirements.
- Enhanced network reliability for DNS Renewal Switzerland (2015) by leading re-leveling of return signal path amplifiers.
- Reduced project expenses by over 20% through execution of business engineering strategies, streamlining workflows for process and cost optimisation.

Additional Experience

Senior Platform Developer | FLYTEC AG, Horw, Switzerland

- Streamlined version control and collaboration by documenting build processes and migrating codebase to GitHub.
- Enhanced product performance and reliability by expanding and developing Flight Computer product lineup using embedded Qt on ARM architectures.

Founding Partner | Loyalty Solutions GMBH, Wollerau, Switzerland

- Launched customer loyalty platform, Stampshark, through strategic equity participation, enhancing user engagement and retention.
- Enhanced customer experience and expanded platform reach by delivering functional iOS application using Objective-C.

Senior Project Manager | Swisscom Schweiz AG, Zürich, Switzerland

- Increased efficiency by reducing headcount by 6 FTEs through development and implementation of “PBXTool,” automated solution for generating 51,000 telephone numbers for Avaya programming on Mac OS X.
- Achieved 7.5M CHF cost savings by delivering Avaya IPT (Voice over IP) deployment across 320 buildings and 36,000 desks for Credit Suisse within 19M CHF budget, enhancing communication efficiency by consolidating five different vendor platforms.

Senior Project Manager | Credit Suisse, Zürich, Switzerland

- Achieved seamless migration across 60 countries, 630 locations, and 124,000 endpoints by leading iDesktop Project Rollout, ensuring efficient deployment of rollout tools for physical, virtual, and stock endpoints.
- Realised 25% cost savings and enhanced project stability by conducting comprehensive costing estimates and risk assessments for various deployment scenarios, effectively optimising project budgets and mitigating risks.
- Reduced manual intervention by 50% and minimised user downtime by developing and integrating 100% hands-off migration process for transitioning from Windows XP to Windows 7, optimising asset transition efficiency.

Deputy Programme Manager | Swisscom Solutions AG, Zürich, Switzerland

- Enhanced data protection by implementing Swisscom’s Unified Security Architecture, ensuring 50% coverage across critical systems.
- Delivered precise implementation estimates for unified architecture solutions, optimising firewalling and routing of sensitive Swisscom data warehouses.

Creator | IOS Development Project, Stäfa, Switzerland

- Launched and increased accessibility by developing and releasing Livetrack24 mobile application on Apple's App Store.

Senior Project Manager | Swisscom Solutions AG, Zürich, Switzerland

- Achieved substantial cost savings by developing and implementing mitigation plans, successfully preventing additional €500k in update fees, ensuring budget integrity.
- Enhanced internal network performance and security by leading replacement of 20 internal DNS servers with n3k appliances across Switzerland, optimising infrastructure efficiency.
- Secured and managed contracts worth approximately 24M CHF by leading Pre-sales and Sales Engineering initiatives across a wide range of technical projects.

Senior Project Manager | Credit Suisse, Zürich, Switzerland

- Delivered large-scale network upgrade project within budget and on schedule by managing budget of \$3.3M (Credit Suisse) and 972k CHF (Clariden Leu), presenting regular project updates to steering committee and CEO to facilitate informed strategic decisions.
- Achieved communication and operational efficiency by upgrading fiber and copper infrastructure across 12+ locations to meet Credit Suisse standards, enabling deployment of Avaya VoIP telephony systems and emergency power solutions.

Director HR IT/Senior IT Manager & System Architect | UBS AG, Zürich, Switzerland

- Achieved 99.99% system uptime through design and management of robust Group Compensation Infrastructure across 30+ servers in four geographic locations, utilising SUN, Fujitsu-Siemens, and IBM blade servers with EMC CX600 SANs to support global compensation processes.
- Streamlined access to HR resources for over 10,000 employees, enhancing engagement and productivity by spearheading development and deployment of Digital Island Internet Portal.

Senior Internet Engineer | NET.GENESIS Corporation, Cambridge, MA

- Streamlined all activities related to external and internal websites, ensuring effective oversight and alignment with organisational goals.
- Achieved enhanced user experience and improved site navigation efficiency by leading comprehensive redesign of over 900 pages across external and internal websites.

Web Engineer Consultant | PENCOM Web Works, Boston, MA

- Completed multiple short-term engagements with firms in Boston area, contributing to project goals and enhancing client satisfaction.

Web Engineer & Toolsmyth | The MathWorks, Inc., Natick, MA

- Enhanced software delivery and security by designing and implementing secure online services for software upgrades, ensuring data integrity and protecting against unauthorised access.
- Achieved 64% reduction in build cycle time, decreasing average duration from 110 minutes to 40 minutes by re-architecting existing build engine, enhancing operational efficiency and supporting 24/7 development productivity.

Quality Assurance Engineer | AGFA Division of Miles, Inc., Wilmington, MA

- Achieved reduction in manual testing efforts by streamlining testing processes through leadership of Systems Automation Projects across Macintosh, SUN, and Windows platforms using tools like WinRunner and XRunner.
- Enhanced system capabilities and improved user efficiency by designing and implementing custom software tools in C and Postscript, effectively addressing functionality gaps in commercial applications on SUN and Macintosh platforms.

Systems Administrator | Graphics Express, Boston, MA

- Enhanced system utilities and automated routine tasks by developing custom C and Shell scripts, resulting in increased operational efficiency.
- Contributed to successful launch of advanced Raster Image Processors (RIPs) by leading beta testing for AGFA and Linotype-Hell/Motorola models, identifying and resolving critical bugs.

Additional Education & Credentials

Data Science: R Basics | Harvard University, Cambridge, MA

Master of Science in Computer Science | Boston University, Boston, MA

Concentration: Object-Oriented Modular Design using C++ & High-Performance Parallel Architectures

Bachelor of Music, Cum Laude, Music Production & Engineering | Berklee College of Music, Boston, MA

Bachelor of Science in Music & Acoustical Engineering, minor in Physics, Computer Science | University of Wisconsin, Madison, WI

Certificate in Internet of Things, Business Implications & Opportunities | Massachusetts Institute of Technology, Cambridge, MA

Technical Proficiencies

Over 1000 lines: PHP, Assembly

Familiar: iOS, MySQL, Oracle SQL, PostgreSQL

Over 5000 lines: Java, BASH, C, C++, Objective-C, Python, LaTeX

Languages

English: Native Fluency | German, Swiss German: Business Fluency