

## Professional Experience

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Software Engineer @ **Microsoft Azure** Seattle, Washington, U.S.A. February 2023 – present

- **GPU Cluster Management:** Designed and deployed real-time management system for Azure's 500k+ GPU clusters (NVIDIA H200/GB200) across globally distributed data centers.
- **Hardware Lifecycle:** Architected REST API for node power-cycling, automating fault recovery at scale.
- **LLM Inference at Scale:** Architected 'In-Boundary' inference engine processors for Microsoft CoPilot. Implemented an aggregate-merge pattern to process millions of sensitive prompts/hour with <1ms latency and full GDPR compliance.
- **ML Platforms Infrastructure:** Built self-service provisioning tools for Azure CosmosDB (reduced setup time by 90%). Engineered SWSS processors to index millions of Outlook mailboxes daily, optimizing throughput on petabyte-scale datasets.

Founder in Residence @ **Entrepreneur First** Toronto, Canada. 2022

- **Astrus (Analog Chip Design):** Validated technical thesis for a physics-aware AI chip model through 50+ customer interviews and pitched to deep-tech VCs (including HAX).
- **Gotta (HealthTech):** Built a two-sided blood donation marketplace. Secured 3 government grants to fund the MVP and negotiated integration pilots with major hospital networks.

Software Engineer @ **ZeroFox** Baltimore, U.S.A. 2021

- **Cybersecurity Cloud Infra:** Refactored distributed Go microservices and Terraform, reducing AWS spend by 75% (\$3M/year).

Artificial Intelligence Engineer @ **Twenty Billion Neurons GmbH** Berlin, Germany. 2020

- **Deep Learning for Computer Vision:** Engineered real-time video recognition pipelines for an AI health coach. Startup advised by Yoshua Bengio, backed by M12, and acquired by Qualcomm.

Software Engineer Intern @ **Amazon** Luxembourg City, Luxembourg. 2019

- **Supply Chain Optimization:** Engineered supply chain algorithms for EU network. Built optimization engines for zero-carbon routing initiatives.

Software Engineer @ **Fintual YC S18** Santiago, Chile, 2018

- **Financial Visualization:** Built ETF visualization engine (D3.js/Python). Leveraged dashboards to directly close clients, converting users from traditional banks by visualizing fee transparency and projected growth.

## Education

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**Stanford University** | Artificial Intelligence Graduate Certificate (SCPD)

Computer Science, AI Track (In Progress): Specializing in Deep Learning and Autonomous Agents (CS230, CS234, CS229). Selected for full corporate sponsorship by Microsoft.

**University of Texas at Austin** | Machine Learning Research Scholar

First undergraduate awarded the AI Research Scholarship. Conducted Deep Learning research on ConvGANs (PyTorch/TensorFlow) with Ph.D. Alex Dimakis.

**Pontifical University of Chile** | Bachelor of Science. Major in Computer Science. Minor in Statistics

Earned three research and entrepreneurship scholarships. Teaching Assistant across eight classes.

Chapter author for 'ChatGPT und andere Quatschmaschinen: Gespräche mit Künstlicher Intelligenz'. Andreas Sudmann, 2024.

## Founding & Venture Experience

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- **Drone Services & Engineering:** Mapped two municipalities using DJI fleets; models supported a \$50k Architecture Award project. Designed and assembled custom UAVs for experimental flight.
- **Eredità:** Bootstrapped sports league platform to \$100k ARR. Orchestrated logistics for 800+ weekly active users for 7 years.
- **Supply Chain Arbitrage:** Imported 400+ Raspberry Pi microcontrollers at high margins by bridging supply gaps in LATAM.

## Tech Stack

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- Languages: Python, Go (Golang), C# (.NET), SQL (KQL), JavaScript (D3.js).
- AI & ML: PyTorch, TensorFlow, LLM Inference, RAG, Computer Vision (GANs).
- Infrastructure: Azure (HPC), AWS (Cost Optimization), Docker, Kubernetes, Terraform.