



Charles BOUDRY

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Age : 36

ABOUT

My passion is to constantly challenge myself and step out of my comfort zone:

- Keeping myself up to date with the latest technical trends, experimenting with new technologies through proof of concept and sharing experience in documentation;
- Spanning out my scope with cross-domain skills in infra, dev, data and especially Machine Learning to strive for customer success.

I wish the next scenario that I will work on could leverage my acquired knowledge, PLUS "an extra bit" that allows me to continuously grow.

EXPERIENCES

Freelance

CEO of AI Club - August 2024

With 15 years of computing experience, including a decade at Microsoft, and a wide spectrum of roles: developer, infrastructure engineer, manager, expert, architect, CTO; I created my own company to assist my clients with:

- Strategy:
 - Defining development strategies for AI technologies
 - Identifying new opportunities for AI integration into customer businesses
 - Driving cross-team collaboration to ensure the company stays at the forefront of AI advancements.
- Architecture:
 - Designing, implementing, and reviewing cloud architectures, with a particular expertise in Microsoft Azure, includes:
 - Governance (Management Group, Subscriptions, Policy)
 - Identity (AAD, AAD B2C)
 - Infrastructure as Code (Terraform) & CICD (GitHub pipelines)
 - Networking (Topologies, DNS, VNET, NSG, Azure Firewall, VWAN, private endpoint, etc.)
 - Compute selection (VM, Container Apps, App service, Kubernetes)
 - High availability (Front Door, App Gateway, Load Balancer)
 - Monitoring (Azure Monitor, Log Analytics)
- Deep dive session:
 - Conducting deep-dive technical conversations with customers on
 - Azure technologies
 - Machine learning
 - Leading the design and implementation of technical Proof-of-Concepts
- Training:
 - Leading and mentoring Director board
 - Conducting in-depth technical training workshops (Microsoft Certified Trainer)

Chief Technology Officer for Artificial Intelligence

Expertime, Nov 2023 – July 2024 (9 months)

My mission as CTO AI & Machine Learning at Expertime consists of 3 axes:

- Strategy: define the development strategy of AI technologies within the company, identify new opportunities for AI integration into customer's business, drive collaboration across teams (Infra, Data and AI) and ensure the company remains at the forefront of AI advancements
- Management: lead and mentor the data science team, optimize team productivity to drive the project success
- Technical expertise: conduct deep-dive technical conversation with customers on Azure technologies and machine learning, lead architecture design and Proof-of-Concept implementation

Latest significant impacts:

- Design, supervise and contribute to a highly modular Azure Chatbot solution for our customers (Azure architecture, terraform, python, container, Lang chain, LLM and modules: RAG, speech to text, avatar, etc.)
- Structure and drive the data science team towards complex use case: advanced RAG, Satellite imaging, Image recognition
- Cloud architecture design, implementation and review for customers leveraging Azure solutions on AI landing zone

Technologies :

- Cloud Architecture: Pure player Microsoft Azure, Terraform
- Machine Learning: LLM, RAG (AI Search, RALLIE, Recursive Retriever, GraphRAG), GNN, Face ID,
- Programming language & associated: Python, FastAPI, Streamlit, Bot Framework SDK

Senior Cloud Solution Architect (FastTrack for Azure)

Microsoft Corporation, Jun 2019 – Oct 2023 (4 years 6 months)

Main activities:

- Cloud architecture design, implementation and review for Microsoft large account customers leveraging Azure solutions on computing, security and machine learning.
- Act as bridge between customer and product team for user needs identification, product feedback, feature requests and documentation edition.

Latest machine learning projects:

- Deploy end-to-end object detection and tracking pipeline: Data labelling in Azure Machine Learning, learning transfer for YOLOv7, model packaging with ONNX, dockerization and deployment on-premises through Azure IOT hub/edge for real time inference
- Demonstrate AUTO-ML capacity to generate a classification model to evaluate students' performance and predict result for scholar year end
- Implement MLOPS pipeline in Dev, UAT and Production environments
- Deploy Azure Trusted Research Environment (TRE) for NHS Hospitals to provide secure Machine Learning environments

Open source contributions (github.com/chboudry) :

- Creation of Azure Visual Intelligence, a tool developed with TypeScript, React, Redux, 3djs to automate architecture diagrams generation based on Azure resources footprint.
- Creation of Azure Storage JS explorer, single page application developed in TypeScript to easily download blobs from Storage Account with authentication.
- Creation of Azure Machine Learning end-to-end security guidelines: Terraform built, training compute with no public IP, Kubernetes inference endpoint with private load balancer, ml pipeline trigger from GitHub self-hosted runner.
- Benchmark of model format (Pickle, ONNX, Pytorch) impact on docker image size
- Kubeflow installation guide on Azure Kubernetes Service

Technologies:

Cloud architecture:

- Azure Governance and Identity Management (Azure AD, AAD Connect, AAD B2C), Security (Azure Defender + Azure Sentinel)
- Infrastructure as Code (Terraform, ARM), CI/CD (GitHub Pipelines), Kubernetes & Docker
- Monitoring (Azure Monitor, Log Analytics)
- Networking (Topologies, DNS, VNET, NSG, Azure Firewall, VWAN, private endpoint, etc.)
- Applicative (App service, AKS, Logic Apps, Functions) and Data (SQL, Data factory, Databricks SHIR)

Machine Learning:

- Azure Trusted research Environment
- Azure Machine Learning (secure environment, training compute, AutoML, Jupyter Notebook, batch & real time inference)
- MLOPS
- OpenCV, NVIDIA Deepstream, KAN
- YOLO, ONNX

Programming languages:

- PowerShell, ARM, Terraform, Python, C#, JavaScript/Typescript, React

Premier Field Engineer – Modern Infrastructure & Modern Apps

Microsoft France, Sep 2014 – Jun 2019 (5 years 3 months)

Main activities:

- Provide Microsoft customers with reliable technical solutions to complex integration problems associated with business solutions, covering: specific problem isolation and correction, user mode debugging, application design and supportability reviews, performance tuning, troubleshooting, configuration management, deep-dive technical training workshop.
- Expert on SCCM, SQL, PowerShell, Microsoft Azure IAAS & PAAS, Azure DevOps, C#, .NET
- Certified Trainer on SCCM, PowerShell, Azure

Other activities:

- Creator of a SCCM collection visualization tool in C#, which was later integrated in Microsoft product.

System Engineer & Manager

Ministère de la Défense, Feb 2011 – May 2014 (3 years 11 months)

Main activities:

- Manager of a team of 8 people (Public contractor + military + civil servant)
- Maintain the backend infrastructure of a company of 5 thousand people.
- Key topics: Backend: Active Directory, Exchange, SCCM, IIS, NetApp, C#

Other activities:

- Creator of an internal C# tool to automate repetitive administrative task.

Internship - Developer

Ministère de la Défense, Feb 2010 – Jul 2010 (6 months)

Main activities:

- C++ Developer
- Add features in open-source communication systems.

Internship - System Engineer

Commissariat à l'énergie atomique et aux énergies alternatives, Jan 2009 – Jun 2009 (6 months)

Main activities:

- Secure against physical steal of data
- Study of the iSCSI network protocol
- Proof of concept to enable remote network boot of computer without hard drive.

DEGREE, DIPLOMA & AWARDS

2024	Certifications: Neo4j Certified professional, Neo4J Graph Data Science Certification
2023	Mines Paris PSL: Certified Data Scientist
2014 – 2023	Certifications: Azure Infrastructure Associate, Azure Developer Associate, Azure Solution Architect Expert, Azure AI fundamentals, Azure Data Scientist Associate, Microsoft Certified Trainer, etc (22 total).
2010 – 2011	First year auditor in psychology
2008 – 2010	Master Degree Computing at Compiègne's Technology University, main major in system and network, minor in PHITECO (Philosophy, Technology and Cognition)
2005 – 2007	University Degree at Dijon IUT. Primary topics: Computing, Mathematics and Economy.
2003 – 2005	Baccalaureate scientific mathematical option at Dole, Charles Nodier Highschool.

ADDITIONAL INFORMATION

Language	French native, English fluent, Chinese
Interests	Swimming, Running, Biking, Digital Drawing, Cooking, Chess, Travel

TESTIMONY

Toon Dillen (2020 to 2023 manager), Principal Engineering Manager at Microsoft

"I've worked with Charles first as his colleague and later as his manager at Microsoft and I can without a doubt say that Charles is one of the most talented engineers I've worked with during my career.

He is perhaps the most versatile engineer I know with both an incredible breadth and depth of cloud knowledge, Azure, infrastructure, machine learning, ... He embodies a learn it all mentality by continuously learning new technologies and he thrives on solving the hard problems. He continues to work when others would have already given up.

He is a self-starter and delivers top-notch work every time. I've received great feedback from customers, colleagues and partners over the years we've worked together and I would highly recommend him."

Vanessa Bruwer, Principal Engineer at Microsoft

"I have had the honour and pleasure of working with Charles over the last four years in FastTrack for Azure. Charles is an amazingly smart, passionate, talented engineer with skills covering a wide range of areas, from core infrastructure to AI and Machine Learning. I have always been in awe of his ability to pick up new skills so quickly, but then also share the knowledge with others in a way that is easy to digest. He will be a great asset to any team, and I will miss working closely with him."

Hristina Jilova, Azure Data and AI Architect at Microsoft

"I had the pleasure of working with Charles on several Azure Machine Learning projects over the past months. He is a highly skilled Azure Infrastructure Professional with a strong passion for Machine Learning. His love and experience with computer vision make him an invaluable asset to any team. He has a talent for solving even the most complicated issues related to Azure Machine Learning, Networking, AKS etc.

Charles is a standout team player who is always willing to lend a helping hand.

I highly recommend Charles for any project without hesitation and would welcome the opportunity to work with him again in the future."