

Nicholas Hammonds

nicholas.hammonds@gmail.com +43 664 1684154

[https://www.linkedin.com/in/nicholashammonds/
nichammonds.com](https://www.linkedin.com/in/nicholashammonds/nichammonds.com)

Over two decades of industrial experience working as a Solution Architect, pre-sales consultant, AI specialist, CTO and development team lead. Diverse experience across the fields of **Cyber Defense, Network Security, Financial Services, Telecommunications**, and **Digital Advertising**. I have an open and international mindset, having worked in London, Singapore, and Vienna.

As Senior AI Solution Architect, my focus at Nevis Security has been on creating and spearheading the company's AI strategy, leading to the creation of its first RAG powered Knowledge System. By integrating cutting-edge AI tools with a responsible governance mindset, my team has balanced innovation and security to meet the needs of industries such as healthcare and banking.

I lead the engineering of an Agentic AI suite that empowers security integrators with real-time tools in setting up robust cybersecurity systems. The solution is architected heavily towards GCP and Vertex AI, whilst we also pursue being cloud agnostic by engineering certain streams in Langchain for deployment within Azure and AWS.

My experience as CTO and development team lead, combined with my proven skills in predictive analytics and software engineering, make me an essential asset for leading a team and helping shape products.

TECHNICAL SKILLS

AI and Machine Learning Related: Large Language Models (LLM), AI Orchestration, Retrieval-Augmented Generation (RAG),

Artificial Intelligence (AI), Machine Learning, PyTorch, TensorFlow, Predictive Analytics, Data Science, Big Data Analytics, Data Analysis, Data Visualization, Model Context Protocol (MCP), Panda Dataframes, Google BigQuery, Matplotlib

Agentic AI: Google ADK, MCP, Langchain

Programming Languages & Tools: Python (Programming Language), SQL, Shell Scripting, Docker Products, Java, API-First Architecture

Cloud Platforms & Services: Google Cloud Platform (GCP), Amazon Web Services (AWS), Azure, Cloud-Native Architecture

Big Data: Hadoop, MapReduce

Data Management & Infrastructure: Data Architecture, Data Infrastructure, Databases, Data Governance, ETL Tools, Elasticsearch, Elastic Stack, Logstash, ECS, Hive

DevOps & Practices: DevOps, Continuous Integration, Continuous Integration and Continuous Delivery (CI/CD), GitLab

Cyber Security Knowledge: MITRE ATT&CK Framework, Open Source Intelligence (OSINT)

EDUCATION

- Computer Science BSc | Brunel University, London | 2:1 with honours, 1995 -1999
- AWS Certified Architect | AWS | November 2023
- Leadership in an Exponentially Changing World | MIT Sloan | December 2021
- Machine Learning In Business | MIT Sloan | July 2021
- Data Science Methodology | IBM | 2018
- Data Analysis With Python IBM | 2018
- Tools For Data Science | IBM | 2018

WORK EXPERIENCE

Nevis Security | Vienna | Senior AI Solution Architect | Since August 2024

- Kickstarting the company's AI initiative by winning support from board and engineering team leads for my AI strategy. Ran various Build Versus Buy analysis to determine the best tech stack long term.
- Designed, Implemented and delivered an AI knowledge base using data science pre-processing skills, RAG and LLM prompt engineering.
- Designed and implemented an Agentic AI suite that can advise and configure nevis security configuration based on human prompts. Involved a full Technology Portfolio Assessment of all the existing internal and external tech stacks relating to existing attempts to do this.
- Senior member of the AI Governance and Architecture Governance board responsible for reviewing and adopting safe AI products and practices whilst monitoring changing regulations and guidelines.
- Leading the integration and development of a security solution for a major Swiss health care provider and major Swiss banks working with them on their Target Architecture Blueprint

- I conducted a Vendor Evaluation & Selection on best AI tools to be purchased (gemini-cli versus claude-code)

Raiffeisen Bank International (RBI) | Vienna | Senior Solutions Architect and Data Architect Consultant | April 2023 to June 2024

- Led a cross functional team to prototype a hybrid recommender system for portfolio selection (AWS SageMaker, matrix factorization, content-based & collaborative filtering).
- Performed system wide profiling of RBI's Environmental, Social and Governance (ESG) platform and reduced response times by a factor of 30.
- Re-architected existing monolithic structures into a modern micro services architecture running Docker and Kubernetes with AWS EKS to implement container orchestration, thus lowering time to deployment of new features by 75%
- Refactored the MySQL (Managed by Aurora) data schema to be normalised and include efficient use of indexing, this resulting in a sharp increase in query performance and a significant optimising of resulting payload size by 90%.
- Collaborated closely with customers to understand their needs and ensure a seamless rollout of the new system into production without disrupting their services.
- Optimised poor-performing Python code into streamlined and well-documented classes and functions, leveraging the power of NumPy and Pandas libraries to fine-tune complex ESG calculations. Simultaneously, mentored the development team to adopt better coding practices and deployment via the use of GIT based CI/CD pipelines.
- Leveraged AWS's auto scaling and ElastiCache caching to further improve system performance and reliability while driving down monthly AWS costs, based on analysis of the full production load required by the system.
- Drawing on my AWS Solutions Architect certification and network experience, I configured a secure, robust, and resilient cloud network infrastructure to withstand stringent penetration tests.

Content Garden Technologies | Vienna | Chief Technical Officer & Chief Data Analytics Officer | February 2022 - May 2023

- Responsible for hiring and mentoring a multi disciplinary team consisting of developers, data scientists, testers and scrum masters.
- Established a cross functional team to pilot the successful adoption of GDPR compliance by implementing the IAB Europe Transparency and Consent Framework (TCF), effectively persuading owners, board members, and legal counsel of our platform's alignment with regulatory requirements.
- Implemented data science and ML technologies into our advertisement space purchasing process, which allowed for sales staff to negotiate up to 20% of current advertisement space. Technologies used included Sentiment Analysis, Linear Regression, and XGBoost.

- Directed development teams to successfully adopt a microservices architecture with robust system monitoring using AWS, React, CloudWatch, Datadog, Kubernetes, and Docker, resulting in significantly reduced response times and outages.

BAE Systems Applied Intelligence | Singapore | Senior Data Scientist and Solutions Architect | January 2016 - January 2022

- Designed, implemented, and delivered a million dollar enterprise cyber analytics platform based on Hadoop, Yarn and other BigData technologies, the system allowed the tracking of potential cyber threats across the MITRE ATT&CK kill chain. Combined anomaly detection and NLP techniques to provide detailed insights on advanced persistent threats which were then presented to SecOps via a custom Kibana dashboard.
- Served as the local senior tech lead for the delivery and integration of a nationwide fraud detection platform in Singapore, utilising Spark, MapReduce and other technologies to detect and mitigate fraud. Collaborated closely with customers, developers, and senior decision-makers to ensure successful project completion and robust protection against fraudulent activities.

Patsystems/IonTrading, London & Singapore | Senior Software Developer | July 2010 - January 2016

- Led engineering teams in the successful delivery of a post trade risk platform written in Java to a catalogue of tier one financial institutions, including JP Morgan and Deutsche Bank.
- Wrote the technical proposal and prototype that won Nomura bank as a new client.
- Implemented Java-based variants of the Black-Scholes algorithms to calculate theoretical prices and Greeks for option trades, this was set alongside the existing feature set of the main product and helped the sales teams reduce customer churn when renegotiating existing customer contracts.

Sungard | London | Senior Software Developer | Nov 2009 – July 2010

THUS Plc./Cable And Wireless, London | Senior Software Developer | September 2004 – October 2009

SIEMENS | Vienna & London | Software Developer | September 2001 – September 2004

FUJITSU Telecom | Birmingham | Software Developer | September 1999 – August 2001

REFERENCES

Gerald K. Lanzerits , CEO Content Garden, Vienna

“Nic joined us at the beginning of 2022 at content garden technologies GmbH as CTO and member of the Executive Team. Nic quickly got to grips with content garden and set the right priorities to stabilise the existing in-house platform and started measures to improve scalability. Especially his hands-on mentality and willingness to work operationally was impressive. Above all, however, I would like to emphasise that Nic has great analytical skills and prepares them very well. Furthermore, Nic has a very profound knowledge of machine learning which he expressed in POCs.

Nic has a great sense of humour, great stand up mentality and is very good at motivating himself. His international expertise is very enriching for a local management team.”

Victor Yeo, Former General Manager, BAE Applied Intelligence, Singapore

“Nicholas is passionate about what he does, he is my go to Software Architect for complex challenges. He has an inquisitive mind, learns fast and is able to break down otherwise highly complex chaos into simpler problem sets to tackle.”

Bjorn Chyba - Quantitative Analyst and Developer, RBI, Vienna

“Nicholas served as a solutions architect at RBI, where he played a crucial role in improving our Software Architecture, Cloud Infrastructure, and data architecture for our ESG offering. He redesigned the software data schema, making it more understandable and efficient for internal developers. Nicholas swiftly identified system bottlenecks, enhancing request response times by 30 times. His consultancy on cloud technology best practices and his significant input on the product roadmap were invaluable. He was professional, approachable, and communicated clearly. I strongly recommend Nicholas.”

Other excellent references available on request

OTHER INTERESTS

Playing guitar, Music production, Reading, Running and Cycling