ARC VALTBERG

Freelance IT Consultant in Azure Cloud & Cybersecurity

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FREELANCE IT CONSULTANT

IT Consultant

Freelancer

📅 07/2025 - Present   📍 Finland

I assist companies with **Technical Solutions** in complex business problems. Done small and larger projects as consultant, mostly in realm of:

- **Penetration testing** and **cybersecurity**. Cloud and on-prem assets hardening and testing. **Security architecture**, **threat modeling**, and **vulnerability assessment**.
- Microsoft **Azure cloud** architecture, engineering, infrastructure, and design.
- Practical solutions using **C#/.NET**, **Golang**, and **Python**. **API** endpoints and **microservices**. Frontend implementations in **React/TypeScript** and **Blazor**.
- **AI** solutions using **n8n**, **PyTorch**, **Civitai**, **Hugging Face** for support/assistant bots or product pipelines. **AI API** creation and **integrations**, **agents**, **agentic workflows**, and **automation workflows**.
- **DevOps** and **DevSecOps**: **pipelines**, **vulnerability management**, **Infrastructure as Code (IaC)**, and **CI/CD** using **Bicep**, **Terraform**, **ARM**, and **Azure DevOps**.
- Web and app security assessments and remediation (**OWASP**).
- Web App and API **security testing**.

EXPERIENCE

Technical Architect

Knowit

📅 08/2024 - 08/2025   📍 Tampere, Finland

Azure expert for cross-functional development teams, owning all aspects of cloud infrastructure across networking, **DevOps**, resource provisioning, and cost optimization for **MSP**.

- Designed, deployed, and managed cloud environments using **Azure DevOps** pipelines, **Terraform**, **ARM templates**, and **Bicep** scripts to ensure consistency, scalability, and security.
- Handled advanced incident response and root cause analysis for critical customer issues—engaged when all prior support tiers were unsuccessful in resolving escalated problems.
- Managed **logging**, **firewall** configuration, **SIEM** integration, **threat detection**, **vulnerability management**, and **hardening** of cloud environments to align with security best practices.
- Continuously **optimized infrastructure** for performance and **cost-efficiency**, enabling seamless operations and predictable scaling for enterprise clients.
- Solved **complex** customer-facing Azure challenges, ensuring resolution, reliability, and client satisfaction in **mission-critical** scenarios.
- Led team of cloud and software engineers **designing** and **developing** multiple **critical data handling**, **transition** and **transformation** products implementing **deployment automation**, **backup** and **recovery**.

Cybersecurity Specialist

NDA Client (Hardening Project)

📅 07/2025 - 09/2025   📍 Helsinki, Finland

Did legacy system hardening on 6+ years old system, boosting its performance and security before product deployment in EU region, short but interesting project.

- **Hardened APIs** that handle RDP connections and user identities.
- Improved security on **React/TypeScript**-based frontend remediating **XSS vulnerabilities** and updating systems to modern standards.
- Improved **JWT** cookie **management**.
- **Hardened Ubuntu systems** against **privilege escalation**.
- Delivered fully tested and secure system to the client and **advised on future** remediation and **processes** to improve development by implementing **DevSecOps** practices.

SUMMARY

Technical Architect & Cybersecurity Specialist with a strong background in **cloud infrastructure**, secure software **development** (**Senior Software Engineer**), and hacking (**Penetration Testing**). I design scalable, secure, and practical solutions using **Azure/.NET** and engineer systems in **C#**, and **Python/Go**. With a penetration testing background, I bring a **DevSecOps** mindset to project pipeline. If you're looking for someone who combines **secure design**, hands-on engineering, and **business impact**... let's connect.

TOP SKILLS

💎 **Technical Architect**

Microsoft certified Solutions Architect. Been working with Azure Cloud for over 4 years. I have designed and implemented azure solutions from PoC to prod.

💎 **Senior Software Engineer**

7 years experience coding.
Primary language C#/.NET and python. Coded and scripted on pretty much anything from PHP and JavaScript to C/C++, Go, Bash and PowerShell since 2011

💎 **Cybersecurity Specialist**

Web Application Security, Penetration Testing, Active Directory, Azure Cloud Specialist. CPTS, PNPT, CWES Certified, HTB rank: Elite Hacker (top 0.16% of global users).

💎 **Azure Specialist**

Microsoft Certified Azure Specialist/Engineer. Worked on multiple industry projects for large international customers creating APIs, Microservice's and SaaS Applications

CERTIFICATION

Microsoft Certified: Azure Solutions Architect Expert (AZ-305)

Microsoft

Microsoft Certified: DevOps Engineer Expert (AZ-400)

Microsoft

Microsoft Certified: Azure Developer Associate (AZ-204)

Microsoft

Microsoft Certified: Azure Administrator Associate (AZ-104)

Microsoft

HTB Certified: Penetration Testing Specialist (CPTS)

Hack The Box

EXPERIENCE

Security Manager

Knowit

📅 11/2024 - 08/2025   📍 Tampere, Finland

Led cloud-based security operations for a major financial client, focusing on vulnerability management, threat detection, threat modeling and risk analysis, and incident response within the Azure ecosystem. Allocation 20%

- Served as the primary liaison between stakeholders, development teams, and the **Security Operations Center (SOC)**, ensuring clear communication and coordinated action during security events.
- Monitored suspicious activity using **Microsoft Sentinel** and **Defender for Cloud**, collaborated closely with SOC analysts to investigate and mitigate emerging threats.
- Performed updates on complex, sensitive systems using **Azure Update Manager**, ensuring compliance with patch management policies in regulated environments.
- Created detailed security reports, communicated risk insights to business leaders, and coordinated the response strategy for identified vulnerabilities and incidents.
- Planned and guided security-related tasks for **SOC and Development teams**, from **threat mitigation efforts** to process improvements and strategic updates.
- Played a critical role in maintaining a secure, compliant cloud environment through proactive monitoring, stakeholder engagement, and hands-on use of Microsoft security tools.

Azure Specialist

Knowit

📅 11/2024 - 04/2025   📍 Tampere, Finland

Supported development teams in deploying and managing Azure-based infrastructure for a **C# microservices application** using **Azure Managed SQL, Role Based Security** and **OAuth 2.0** authentication. Allocation 30%

- Delivered **DevOps** solutions and worked with deployment pipelines, ensuring smooth **CI/CD** processes and efficient resource provisioning.
- Provided hands-on guidance and mentorship to developers on Azure best practices, **cloud-native design**, and secure application development.
- Facilitated **architecture** decisions and infrastructure optimizations aligned with **scalability**, **performance**, and **cost-efficiency goals**.
- Acted as a bridge between development and operations, ensuring alignment between cloud infrastructure and software delivery lifecycle.
- Contributed to a **stable and maintainable** cloud environment by promoting **automation**, standardization, and secure-by-design principles.

Software Engineer

NDA Client (AI project)

📅 04/2024 - 09/2024   📍 Helsinki, Finland

Created and maintained internal tooling for documentation processing and support requests handling using AI/ML workflows.

- Created **agentic workflow** for documentation **translation and error correction** to support creation of documentation that is compliant with internal policies and guidelines (**RAG, LangChain, PyTorch**).
- Created a bot for support **request processing** and **support escalation** determination.
- Worked on a text recognition **ML** project that focused on training internal models for specialized text recognition software (**PyTorch**).

CERTIFICATION

HTB Certified Web Exploitation Specialist (CWES)

Hack The Box

Practical Network Penetration Tester (PNPT)

TCM Security

Microsoft Certified: Identity and Access Administrator Associate (SC-300)

Microsoft

CODING/SCRIPTING LANGUAGES

</> **C# / .NET**

</> **PYTHON, PyTorch**

</> **GOLANG**

⚙ **POWERSHELL / BASH**

🌐 **REACT / TYPESCRIPT**

🌐 **JAVASCRIPT / HTML / CSS**

🌐 **BLAZOR / MAUI**

LANGUAGES

Finnish
Native
🔵🔵🔵🔵🔵

English
Native
🔵🔵🔵🔵🔵

Japanese
Beginner
🔵⚪⚪⚪⚪

ACHIEVEMENTS

◈ **Leadership**
5 years CEO experience. Lead agile teams working on product development and infrastructure development.

◈ **Business Management & Development**
Was in leading position for multiple companies with high responsibility roles, handled finances, personnel, team management, product development.

◈ **ML/AI Engineer**
Done work with **RAG**, **Lang Chain** and **PyTorch** on **Speech and writing Recognition** projects. **DevOps** and Integrations for **Azure** based projects as well as server upkeep and maintenance for **AI GPU servers**.

◈ **Operations Management**
Lead multiple International tech teams, handled recruiting and supervision, onboarding and training.

EXPERIENCE

Lead Software Developer

Knowit

📅 12/2023 - 08/2024   📍 Tampere, Finland

Sole developer for a mission-critical Warehouse API (**C#/.NET**) designed for real-time package tracking, built entirely on Azure cloud services including **Azure Functions**, **Queues**, **CosmosDB**, **Data Factory**, and **Fabric**.

- Engineered the system in **.NET 8** to handle over **250 000** requests per week under strict SLAs, where system reliability directly impacted operational efficiency and customer satisfaction.
- Improved data handling performance and scaled request capacity, ensuring stability and future-proofing for peak demand.
- Built robust fail-safes and optimized the request pipeline to significantly reduce error rates, minimizing costly manual interventions and boosting application profitability.
- Took full ownership of **development**, **infrastructure**, **DevOps**, and feature delivery from **PoC** (Proof of concept) through to successful release and maintenance.
- Delivered end-to-end solutions that balanced performance, scalability, and resilience, directly enhancing supply chain transparency and operational agility.
- Also responsible for **API security** audits and improvements.

Senior Software Developer

Knowit

📅 05/2022 - 12/2023   📍 Tampere, Finland

Recruited for deep expertise in cybersecurity, particularly in web application and API security, to support the development of a high-impact Identity and Access Management (**IAM**) solution.

- Part of team developing **IAM API** using **C#/.NET** enabling secure access to specialized equipment, used by over 58,000 paid customers, delivering over **€15M** in client value.
- Addressed critical security vulnerabilities, ensuring robust encryption protocols and secure access control mechanisms in compliance with international standards.
- Maintained and optimized **Azure Cloud** infrastructure, developed secure **DevOps** pipelines, and ensured operational reliability and scalability.
- Supported a **50%+ revenue increase** and **onboarding of 30 000+ new customers** during project involvement
- Contributed to **strategic expansion** into the **Chinese market** with projected growth of **100 000+ users**.
- Played a key role in the API's evolution from MVP to **enterprise-grade platform**, integrating performance, security, and compliance improvements at every stage.
- Collaborated with Front-End developers to implement secure **React/TypeScript** -based UI components and **harden client-side application logic**.

DevOps Engineer

Freelancer

📅 04/2015 - 10/2021   📍 Helsinki, Finland

Built and operated a 6-node, 48-GPU on-prem compute cluster. Automated provisioning, monitoring, and reliability, developed **DevOps** pipelines, **CI/CD, IaC** for batch workloads.

- Managed driver/CUDA lifecycles and firmware updates.
- Ensured 24/7 operations under tight **SLAs** over more than four years, with **CI/CD**, **automation, monitoring, patching**, and scaling procedures. **99.98%** service availability via automated recovery.
- Automated provisioning and maintenance with **Bash**, **Python.**
- Provided **integration** support for external applications.
- Ensured servers were **compliant** with cybersecurity standards.
- Created **automation** and **API endpoints** for internal tools for tracking and maintenance.

ACHIEVEMENTS

💎 **Staff Training & Supervision**
Trained personnel in Coding and Cybersecurity domains. Personally mentored over 32 team members

💎 **Crisis Management**
As CEO of a company handle multitude of stressful situations over the years.

SKILLS

Software Development & Architecture

| Software Development | C# / .NET |

| Software Architecture | Security Mindset |

| Full-Stack Development | Visual Studio |

Web Application Development

Front-End Development (Blazor/React)

Back-End Web Development (C#)

| Unit Testing | Integration Testing |

| SOLID | LINQ | Scrum | TypeScript |

| React | Functional Programming | Agile |

| Information Technology | Git |

| JavaScript | PowerShell | Bash |

Object Oriented Programming (OOP)

Soft Skills

| Leadership | Teamwork & Collaboration |

| Reporting & Documentation | Consulting |

| Time Management | Problem-solving |

Cloud & DevOps

| Azure Cloud | CI/CD (Azure DevOps) |

| DevOps | GitHub | Automation |

Infrastructure as a Code (IaC)

| Networking | Network Administration |

System Administration

EXPERIENCE

CEO | Entrepreneur

Free Forest Trading Oy

📅 01/2017 - 05/2022 📍 Varkaus, Finland

As one of key Founders in the company and most knowledgeable in company operations assumed CEO position in 2017 when previous CEO retired.

- **Lead team** of 15 subcontractors, coordinating timely delivery of goods across International border
- Company achieved trade volume at **1 million** euro (2022)
- Successfully navigated complex **international market** conditions, including the impact of global sanctions on key business sectors.
- Executed a structured and responsible business closure, prioritizing **legal compliance**, **stakeholder communication**, and financial accountability.
- Demonstrated resilience and strategic foresight in transitioning operations, preserving **brand integrity** and **professional relationships**.

Founding Software Engineer

Free Forest Trading Oy

📅 04/2012 📍 Varkaus, Finland

As one of the Founders and sole Developer at a logistics company, I created and maintained software for tracking logistics operations, billing, and inventory management. (**C#/.NET + SQL + Microsoft Server**)

- As **Solo Engineer** run on premises servers and development for over 4 years.
- Transitioned software to stay compliant with customers requirements.
- **Architected and Developed** Logistics software for international transportation and deliveries.
- Software was used to track over **40 000** m3 of different wood types across international border over multiple warehouses yearly.
- Was responsible for whole infrastructure security from web/API to on-site, administered whole network and provided support in critical situations.

Entrepreneur

Frozen Haze Oy

📅 07/2010 - 02/2017 📍 Varkaus, Finland

Established and directed a real estate venture, overseeing investments, development projects, and cross-functional teams in design, construction, and operations.

Technical Project Manager

Amilenic Oy

📅 02/2009 - 03/2012 📍 Varkaus, Finland

Led distributed, international teams of 20+ people in multi-year projects. Oversaw end to end project lifecycle, **planning**, **execution**, and **technical infrastructure** . Acted as both overall **project lead** and **departmental officer**, responsible for **strategy**, **operations**, and **performance** outcomes.

- Implemented structured schedules, resource planning, and data-driven performance reviews
- Designed and led **onboarding**, **mentoring**, and **training** frameworks for new team members. Achieved **87% retention** during high intensity project cycles
- Directed day-to-day operations and real time execution of strategies for groups of 20-30 contributors
- Administered and **maintained technical platforms** (forums, websites, communication systems), while integrating reporting tools and performance tracking. Improved **operational transparency** and **engagement** across all active projects
- Recruited and built cross-functional teams across multiple time zones and cultures. Developed a **resilient, collaborative,** and **high performing** international workforce

System Administrator

Amilenic Oy

📅 03/2008 - 07/2010 📍 Varkaus, Finland

For my excellent performance on the project I was recruited by the same company to continue upkeep and development for created software as well as upkeep and maintain infrastructure. Was responsible for Linux servers and on prem infrastructure as well as compliance with partner integrations.

- Maintained infrastructure with 0 hours downtime.
- Performed necessary updates during nighttime shifts
- After 02/2009 allocation 35%

SKILLS

AI/ML Skills

Lang Chain PyTorch RAG

Agentic AI Data Transformation

Cleaning Validation Automation

Event Driven Workflows

Model Control Platforms N8N

Cybersecurity (Offensive)

Cybersecurity OSINT

Application Security Assessments

OWASP Top 10 Vulnerability

Vulnerability Scanning SQL Injection

Penetration Testing Ethical Hacking

Red Teaming Reverse Engineering

Exploit Development Social Engineering

Web Application Security

Cybersecurity (Defensive)

CVSS MITRE ATT&CK Wireshark

Hacker mindset Information Security

Network Security Application Security

Vulnerability Assessment SIEM

Security Information and Event Management

Microsoft Defender for Cloud

Microsoft Sentinel

TOOLS AND TECHNOLOGIES

Microsoft Azure

4 Years working experience. Been part of and lead creation of new solutions and modification to existing solutions to improve profitability and create business impact.

Zero Trust Architecture

Leveraged **Azure AD**, **Conditional Access**, **MFA**, **Sentinel**, and **Defender for Cloud** to secure both infrastructure and application layers.

EXPERIENCE

Software Developer

Amilenic Oy

📅 03/2006 - 03/2008   📍 Varkaus, Finland

Initiated and led the development of a logistics software solution, handling everything from server setup and database design to coding.

- Developed software used for logistical operations and wood harvesting
- Was responsible for all infrastructure in use, as well as upkeep and administration of said environments

EDUCATION

Engineer's degree, Information Technology

Savonia University of Applied Sciences

📅 09/2006 - 08/2011

Vocational Qualification in Business Information Technology, Information Technology

Savo Vocational College

📅 08/2003 - 05/2006

PROJECTS

Mentorship & Training

📅 07/2018 - Present   📍 Worldwide

Provided hands-on **training** for both internal teams and client personnel, focusing on **practical skills** in penetration testing, web application security, and defensive operations.

- Mentored **32 individuals** in cybersecurity, with all mentees successfully certified.
- **Created training material** and environments for personnel training.

Hack The Box

📅 10/2020 - 07/2024   📍 Finland

I deepened my expertise in cybersecurity by studying topics that enhanced my Capture The Flag CTF skill set. This included participating in simulated enterprise network penetration tests and CTF scenarios through Hack The Box's Pro Labs and CTF competitions, where I executed tasks such as:

- **Web Application Penetration Testing**
- Vulnerability Discovery / Asset Discovery
- Crafting Custom Exploits (**AV Bypass**)
- Report writing (Sysreptor)
- As a result of these studies, I **earned CPTS and CBBH/CWES certifications**
- In 2025 earned prestigious **Elite Hacker** rank for my participation in Active CTF content.

Try Hack Me

📅 09/2019 - 07/2024   📍 Finland

Participated in numerous Capture the Flag competitions on Try Hack Me. The THM learning platform offers users the opportunity to learn cybersecurity and IT topics. I have dedicated a considerable amount of time to this platform and have achieved the following results:

- In 2024 overall count on just CTF's reached over 100 Boxes done
- In 2024 finished **200th** room on THM platform
- **Earned 9 certificates** for completing the following learning paths: Penetration Testing, Security Engineer, CompTIA Pentest+, Red Teaming, Offensive Pentesting, and more

TOOLS AND TECHNOLOGIES

Well Architected Framework

Implemented **infrastructure automation**, **monitoring**, and **governance policies** to ensure scalable, maintainable, and resilient deployments in regulated environments.

Linux/Windows

Microsoft certified **Administrator**, have also worked for 2 years as Systems Administrator at the start of my career. Been running Linux (**Arch/Kali**) as my main OS for ages.

Burp Suite, Caido, ZAP Proxy

I prefer **Caido** for daily use, however Im intimately familiar with Burp for Web Application Security testing

Metasploit Framework

Used this framework for **privilege escalation** and **vulnerability exploitation**. This tool is essential for any cybersecurity expert.

Active Directory

Im familiar with the most **AD** concepts and have worked with **AD** environments. Im also knowledgeable in **Kerberos authentication**, **TGT/TGS** flow, and **AD Security**.

FFUF, GoBuster, Hydra

Industry standard fuzzers for use in fuzzing and enumeration.

PyTorch

Created multiple bots and automation workflows using PyTorch. Made API integrations for existing PyTorch tools.

NMap, Rustscan

Port scanners. Rustscan is my go-to favorite for CTFs

John the Ripper, Hydra

I have performed **password security analysis** in corporate networks for clients as well as have used these tools for years in CTF competitions.

Huggingface

Developed and deployed **ML workflows** leveraging Hugging Face **Transformers** and model hub. Integrated pre-trained and fine-tuned models into production pipelines for **RAG**, and automation workflows. Built **APIs** for **AI-driven services** and experimented with custom model training to support domain-specific use cases.

Sysreptor

This is the tool of choice for report writing for any project that needs cybersecurity reporting in nice pdf format.