

GÜROL CANBEK, PhD

PRINCIPAL / CHIEF ARCHITECT

Enterprise | Data | AI | Mission-Critical Systems

Ankara, Türkiye | gurol@canbek.com | [linkedin.com/in/gurolcanbek](https://www.linkedin.com/in/gurolcanbek) | www.canbek.com

Available August 2026 | Based and authorised to work in Türkiye | International remote arrangements through Türkiye | Travel as needed

PROFESSIONAL SUMMARY

Principal / Chief Architect with 30 years of experience across defence and NATO environments, global SaaS, financial-market infrastructure, cybersecurity and academia. Holds the Turkish Associate Professor qualification in Computer Engineering. Turns fragmented data, complex requirements and multi-stakeholder programmes into governed architectures, traceable models, defensible decisions and implementable systems. Combines enterprise and capability architecture, semantic and relational data modelling, data profiling, AI assurance and programme decision support with hands-on software, systems and security engineering. Holds an active NATO SECRET personnel security clearance, subject to transfer and validation for a new assignment.

CORE EXPERTISE

Enterprise, Capability & Programme Architecture | Enterprise Data Architecture | Semantic & Relational Modelling | Information Flows & Traceability

Data Profiling & Quality | AI Readiness, Governance & Evaluation | Mission-Critical Systems | Cybersecurity Architecture | R&D Technical Substantiation

SELECTED IMPACT

- **50,000+** legacy information-flow records analysed and restructured into a governed 3NF semantic and relational foundation.
- **2,000+** map updates per month supported for The Home Depot at approximately 99% feature-level accuracy, reducing manual adjustment by 80%.
- **Six major IT departments** aligned through an enterprise CIS Controls transformation and capability-based roadmap.
- **Five granted U.S. patents** in a connected near-real-time route-guidance family; peer-reviewed AI/data-quality research including Q1 journal publications.

PROFESSIONAL EXPERIENCE

NATO Allied Command Transformation (ACT) | Senior Enterprise Architect (Contract Assignment)

Norfolk, Virginia, USA | Enterprise, capability, programme and data architecture

Jun 2025 - Jun 2026

- Led architecture work in a multinational, federated environment, connecting capabilities, requirements, alternatives, dependencies, benefits and decision-ready views using NAF v4/v4.1 and ArchiMate.
- Transformed 50,000+ fragmented information-flow records into a governed 3NF relational and semantic model with controlled vocabularies, integrity-enforced migration, provenance and organisational handover.
- Produced executive and working-level architecture views and coordinated cross-organisational stakeholders to resolve ambiguity, validate models and improve traceability.

Pointr - Global Location Technology SaaS | Senior R&D Software Engineer, AI & Expert Systems

Remote / Ankara, Türkiye

Jan 2022 - Jun 2025

- Designed and developed rule-based expert-system and geospatial automation for indoor map classification and digitisation in a cloud-based service architecture.
- Supported 2,000+ monthly map updates for The Home Depot at approximately 99% feature-level accuracy and 80% less manual adjustment; built batch analysis for automated-versus-manual changes.
- Directed spatial data preparation, labelling and quality control; authored a labelling guide, coordinated AI benchmarking and three TÜBİTAK-funded R&D projects, and contributed to patents and microservice transition.

Pointr - Global Location Technology SaaS | Senior Solutions Architect

Remote / Ankara, Türkiye

Aug 2021 - Jan 2022

- Led an Azure-focused cloud-services roadmap, strengthened software validation and initiated security-compliance platform and SOC 2 Type I/II preparation activities.

PROFESSIONAL EXPERIENCE (CONTINUED)

ASELSAN | Senior Lead Engineer; Enterprise & Solution Architect

Ankara, Türkiye | IT service management and enterprise security

Apr 2019 - Aug 2021

- Initiated and led a CIS Controls transformation across six major IT departments, from current-state assessment and capability ownership to a prioritised security roadmap.
- Modelled secure enterprise infrastructure and information flows across separated and air-gapped zones under defence-sector constraints; served on the enterprise architecture board.
- Connected security architecture, data-access governance, information classification and IT-service decisions across organisational boundaries.

HAVELSAN | Chief Software Engineer to CISO / Chief Cyber Security Engineer

Ankara, Türkiye; international assignments | 17-year progression across engineering and security leadership

2001 - 2018

- Engineered electronic-warfare test and training range systems and a NATO Open Skies observation-aircraft mission system from requirements and UML architecture through C++/Qt, GIS, databases, testing and acceptance.
- Designed extensible software, cross-platform frameworks, distributed data services and time-series analysis; led teams and on-site delivery in Türkiye, Pakistan, South Korea and a one-year HAVELSAN project assignment with Elbit Systems in Israel.
- Acted as CISO: led ISO 27001, risk, incident response, secure development, awareness and cross-functional security governance; later deputised the Cyber Security Director and advised security products and R&D.

EARLIER EXPERIENCE

İnönü University | Lecturer & Software Developer

Malatya, Türkiye

Aug 1999 - Feb 2001

- Taught programming and applied computing; developed database and web solutions and authored university textbooks.

Republic of Türkiye Ministry of National Defence | Project Officer

Ankara, Türkiye

Apr 1998 - Apr 1999

- Maintained enterprise personnel, payroll and document-distribution systems on Informix and HP-UX during military service.

Takasbank | Software & Database Specialist

Istanbul, Türkiye

Jun 1996 - Dec 1997

- Designed relational data structures, integrity rules, stored procedures and financial-market systems, including the first Customer Identity Information project supporting dematerialised securities.

EDUCATION, RESEARCH & TEACHING

Associate Professor qualification, Computer Engineering, 2025

PhD, Information Systems (Machine Learning), Middle East Technical University, 2019

MSc, Computer Engineering, Gazi University, 2005

BSc, Control & Computer Engineering, Istanbul Technical University, 1996

- Research in data quality and profiling, AI/ML performance evaluation, systematic machine learning and cybersecurity, including Q1 journal publications on data-quality assessment and machine-learning benchmarking.
- Master's-level cybersecurity lecturer; creator of five Turkish-language Udemy courses providing 60+ hours of structured cybersecurity education.

SELECTED METHODS & TECHNOLOGIES

NAF v4/v4.1 | ArchiMate | TOGAF concepts | Capability & programme architecture | ER/3NF & semantic modelling | Data profiling, lineage & migration | CIS Controls | ISO 27001/27002

Python | C++/Qt | SQL | JavaScript/Node.js | REST | Docker/Kubernetes | Azure | GIS, GeoJSON & geospatial processing | GitHub/Jira | Power BI

LANGUAGES & PROFESSIONAL LINKS

Turkish: Native | English: Professional working proficiency | Research: gurol.canbek.com | GitHub: github.com/gurol