

Ferhat Tüfekçi

Senior Software Engineer | Systems Thinking | INCOSE, BABOK & ISTQB Oriented | Mission-Critical Systems

Ankara, Türkiye | Relocation: Nationwide | Hybrid / Onsite / Remote

Summary

The opportunity to solve real-world problems using nothing more than a computer in my room shaped both my education and my career.

I have a strong academic foundation in Computer Science and over 10 years of hands-on professional experience, bridging theory with real-world, large-scale software systems.

Since 2011, I've built versatile experience across the Software Development Lifecycle (SDLC) and the Software Testing Lifecycle (STLC) — taking on roles such as INCOSE-oriented Systems Engineer, BABOK-aligned Business Analyst, Product Owner, Full Stack Software Developer, ISTQB-oriented Test Engineer, and Product Manager. I have contributed to a wide range of projects, including time-critical systems and enterprise-level desktop and web applications requiring high availability and automatic scalability.

In T-shaped organizations, I can quickly focus on a specific role or domain while leveraging my broad technical and business background. I integrate smoothly into existing team structures, add immediate value without creating role conflicts, and enhance collaboration and delivery efficiency.

Through my experience at the Ministry of National Education, defense industry leaders HAVELSAN and MiLSOFT, the banking sector, and multiple private enterprises, I have built deep expertise in: system analysis, requirements engineering, system and software architecture design, software development, testing, project management, and technical leadership.

Engineering Skills & Toolset: Waterfall, Scrum, CMMI-5, INCOSE, BABOK, ISTQB, Layered & Monolith & Microservices Architectures, RESTful API, TDD, BDD, Jira, Confluence, Doors, MS Project, OOP Design, Design Patterns, UML, Figma, Maven, Jenkins, CI/CD, SonarQube, Git, Gradle, Bitbucket, Docker, Bash, Java, Swing, JavaFX, Spring Framework, Spring Boot, JUnit, Mockito, Apache Velocity, Amazon Web Services (AWS), C, C++, Python, C#, WinForms, Asp.NET, HTML, CSS, JavaScript, Bootstrap, React.js, Hibernate, SQL, RDBMS, PostgreSQL, Postman, Cucumber, POM, Selenium, TestOps — and more.

Contact

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calendly.com/ferhattufekci/ (Availability)

Top Skills

Business Analysis

Software Development

Software Testing

Technical Leadership

Languages

Turkish (Native)

English (Full Professional)

Certifications

Advanced Systems Engineering

Product Owner

Master Microservices with Spring

Boot 3.3.X, Cloud, and Docker

Machine Learning

Amazon Web Services (AWS)

Software Test Automation

API Testing

Security & Compliance

Military Service Completed

Personal Security Clearance

(KGB, valid until 04/2026)

Valid Driver's License (Class B)

Experience

Freelance

Senior Software Engineer | INCOSE, BABOK, ISTQB | Mission-Critical Banking Systems

May 2023 - October 2025 (2 years 6 months)

Ankara, Türkiye

Contributed to the delivery of a mission-critical banking system within a cross-functional team, owning Systems Engineering, Business Analysis, Full-Stack Development, and Quality Engineering.

- Led INCOSE & BABOK aligned Systems Engineering and Business Analysis, transforming complex banking needs into SMART, testable, and fully traceable requirements.
- Established end-to-end traceability between business requirements, system design, and test cases, improving delivery predictability and reducing rework.
- Acted as a bridge between business stakeholders and engineering teams, strengthening alignment and accelerating decision-making.
- Contributed to architecture decisions, including Docker-based containerization for consistent and reliable deployments.
- Designed and developed scalable Java-based backend services following SOLID, layered architecture, and clean code principles.
- Built secure and high-performance RESTful APIs for internal and web-based integrations.
- Shifted the team from reactive bug fixing to proactive Quality Engineering using ISTQB principles, BDD, Shift-Left/Right, and TestOps practices.
- Converted business acceptance criteria into executable BDD (Gherkin) scenarios and automated API, integration, and regression tests, reducing manual effort and release risk.

Technologies & Tools: Scrum, INCOSE, BABOK, ISTQB, Microservice, RESTful API, Jira, Confluence, Doors, UML, excalidraw.com, Figma, Maven, Jenkins, SonarQube, Git, Bitbucket, Docker, Bash, Java, Spring Framework, Spring Boot, Spring MVC, JUnit, Mockito, Html, CSS, JavaScript, React.js, Hibernate, SQL, PostgreSQL, Postman, Cucumber, Selenium, IntelliJ IDEA, VS Code, Microsoft Office Programs.

MilSOFT

Senior System & Test Engineer | CMMI-5 & NATO STANAG | Mission-Critical Defense Systems

February 2023 - May 2023 (4 months)

Ankara, Türkiye

MilSOFT is the only company in the Turkish Defense Industry to reach the CMMI-5 level with 100% coverage in all of its projects.

Mil-DLP (MilSOFT Multi Data Link Processor) is a system that provides multi-link processing capability to share tactical information among surface, subsurface, air, and land platforms/units.

Contributed to the development and quality assurance of this high-reliability defense system under Agile Scrum and CMMI-5 discipline.

- Took active responsibility in system verification and test execution for the Mil-DLP product line.
- Designed and executed test cases with 100% requirement coverage for NATO Tactical Data Links (Link-11, Link-16, Link-22) based on ~6,000 pages of STANAG specifications.
- Planned, tracked, and executed sprint-based testing activities to ensure consistent quality and predictable delivery.
- Added value to organizational knowledge by documenting the HAVELSAN requirement numbering format and enabling its consistent application across the team.
- Built structured organizational knowledge that reduced onboarding time and accelerated productivity for new team members.
- Performed manual and automated tests, including functional and regression testing.
- Conducted impact analysis for defects, deficiencies, and improvement items to support correct prioritization.
- Created and maintained high-quality Problem Report records in Jira, ensuring accuracy in severity, priority, impact, component, and traceability fields.
- Executed verification and regression tests for issues and features in Testing Request status.
- Verified sprint deliverables to support early defect detection and risk reduction.
- Strengthened test discipline by applying structured quality engineering practices in a high-compliance environment.

Technologies & Tools: Scrum, CMMI-5, INCOSE, ISTQB, STANAG, Jira, Confluence, Doors, UML, SVN, Git, Bitbucket, Jenkins, SonarQube, Test Automation Tools, API Gateway, Microsoft Office Programs.

HAVELSAN

Senior Software Engineer | Microservices & ERP Systems | Systems & Quality Engineering

April 2021 - February 2023 (1 year 11 months)

Ankara, Türkiye

HAVELSAN, ranked #99 in DefenseNews 2020, is a leading defense software company specializing in large-scale, mission-critical systems.

Contributed to the MBSM Web Application, a strategic national ERP system built on HAVELSAN's KOVAN platform using Microservices Architecture and Scrum, positioned as a national alternative to SAP-based enterprise solutions.

Worked on ERP business processes for the Ministry of National Defense across Procurement, Cost & Price Analysis, Quality, Inspection, aligned with SAP domains MM, CO, QM, PM, and FI.

- Stabilized and standardized ~2,500 requirements using INCOSE & BABOK, enforcing SMART format, removing ambiguities, and ensuring compliance with MIL-STD-498 and HVL-TEMP-SRS.
- Established end-to-end traceability between requirements, design, tests, and defects.
- Applied Verification per sprint and Validation after feature completion, reducing faulty development cost and rework.
- Managed scope changes through CR and ECP with impact analysis.
- Designed backend services as RESTful APIs within a Microservices Architecture.
- Contributed to a Dockerized environment with Config Server, enabling horizontal scalability.
- Developed enterprise UIs using JSF and PrimeFaces.
- Built 100% coverage test procedures and requirement-to-test traceability.
- Enforced Unit Test Coverage via SonarQube quality gates.
- Implemented Shift-Left & TestOps to catch defects early and lower development cost.

- Built and automated RESTful API tests by converting manual Postman collections into Newman CLI executions and integrating them into CI/CD pipelines.
- Automated integration tests, improving release confidence.
- Applied Shift-Right testing for live modules to minimize operational risk.

Technologies & Tools: Scrum, CMMI-3, ISTQB, MIL-STD-498, Microservices, RESTful API, Java, Spring Framework, Hibernate, JUnit, Mockito, Apache Velocity, SQL, PostgreSQL, Docker, Jenkins, CI/CD, Gradle, Git, Bitbucket, SonarQube, Bash, Jira, Confluence, DOORS, Postman, Cucumber, IntelliJ IDEA, Microsoft Office Programs.

Freelance

Senior Software Engineer | Systems Thinking | Quality-Driven Engineering

May 2010 - April 2021 (11 years)

Ankara, Türkiye

Delivered end-to-end software solutions across a wide range of projects, from static websites to dynamic web applications with admin panels, desktop applications, and enterprise systems including CRM, ERP, and corporate software platforms.

- Owned the full SDLC by combining Business Analysis, Full Stack Development, and Manual Testing, ensuring that the right solution was built and built right.
- Translated business needs into validated requirements using mockups and early demos, capturing decisions and reducing rework.
- Designed and developed scalable and maintainable applications with strong focus on usability, performance, and code quality.
- Executed manual testing to verify functionality, business fitness, and user experience before delivery.
- Replaced trial-and-error development with engineering best practices, significantly reducing cost and delivery risk in freelance projects.
- Transitioned from freelance work to enterprise-scale, mission-critical systems after joining HAVELSAN.

Technologies & Tools: Waterfall, Scrum, ISTQB, BABOK, Monolith, Trello, UML, Photoshop, Git, GitHub, Java, Swing, Java FX, JUnit, Html, CSS, JavaScript, jQuery, Bootstrap, PHP, Laravel, C#, WinForms, ASP.Net, SQL, T-SQL, MSSQL, IntelliJ IDEA, Visual Studio, Microsoft Office Programs.

Ministry of National Education, Republic of Türkiye

TUBITAK 4006 Project Manager

September 2019 - January 2021 (1 year 5 months)

Ankara, Türkiye

- Managed 26 concurrent STEM projects using the Scrum framework, owning planning, sprint execution, and delivery processes end-to-end.
- Achieved 100% compliance with time, scope, and quality targets through disciplined Agile execution.

Technologies & Tools: Scrum, Trello, WordPress, Html, CSS, JavaScript, Arduino, Sensors, Microsoft Office Programs.

Education

Ankara University

Bachelor's degree, Computer Engineering (100% English)

(September 2015 - June 2019)

GPA: 3.01 / 4.00

Ankara University

English Prep School

(September 2014 - June 2015)

English Proficiency Exam: 86/100

Gazi University

Associate's degree, Computer Programming

(September 2011 - June 2013)

Top Score of Department

Yenikent Ahmet Çiçek Anatolian Technical High School

Anatolian Technical High School, Web Technologies and Software

(September 2007 - June 2011)

Top Score of Department