Rafet Ilgin

CONTACT

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PROFILE

Highly motivated, business-minded, results-driven senior software engineer with 15 years of experience in avionics and medical R&D domain. My formal engineering background enables me to work comfortably on the hardware related software development and penetrate into complex problems that requires analytical thinking and data analysis.

I follow best practices and recent development in my field and work according to agile principles (scrum) in V-Model under complex development environments.

EXPERIENCE

MEDICAL APPLICATIONS SOFTWARE ENGINEER

VARIAN MEDICAL SYSTEMS | DEC. 2019 -

Role: Software Development for medical applications within a group of 6 software developers

- Software Programming with C# in windows environment
- Proton therapy imaging user applications development (new features and architectural improvements)
- Installation and maintanence of test environments both hardware and software
- Integration and unit testing
- Automated test infrastructure development
- Requirement review, authoring
- Test case review, authoring and formal test execution

SENIOR EXPERT TEST SYSTEMS DESIGN & DEVELOPMENT ENGINEER

ASELSAN INC. | FEB. 2016 - DEC. 2019

Role: Software Development, System and Hardware Design for automated LRU test systems in a group of 15 software developers

- Software Programming with C/C++ and C# in windows environment
- Bare metal programming with C
- Software development in multithreaded environment for avionic line replacable unit test systems
- Test rack system design and lead manufacturing of system
- Regular meetings with external and internal stakeholders, mentoring new team members
- PCB design (resolver signal reader circuit design)
- Avionic units in scope: Inertial navigation systems, Mission computer, Flight control computer, Multi function display, SlipRing

EXPERT TEST SYSTEMS DESIGN & DEVELOPMENT ENGINEER

ASELSAN INC. | SEPT. 2012 - FEB. 2016

Role: Software Development, System Design for automated LRU test systems in a group of 15 software developers

- Software Programming with C/C++ and C# in windows environment
- Test rack system design and lead manufacturing of system
- Regular meetings with ilternal stakeholders
- Avionic units in scope: Inertial navigation systems, Central Control Computer
- Communication Interfaces: Serial, MIL-STD-1553, ARINC429, CAN, GPIB, ETHERNET

TEST SYSTEMS DESIGN & DEVELOPMENT ENGINEER

ASELSAN INC. | JULY 2010 - SEPT. 2012

Role: Software Development for automated LRU test systems in a group of 10 software developers

- Software Programming with C/C++ in windows environment
- Software development in multithreaded environment for avionic line replacable unit test systems
- Unit testing
- Avionic units in scope: Inertial navigation systems
- UX/UI Design for Automated Test Software
- Communication Interfaces: Serial, MIL-STD-1553, ARINC429, GPIB

IT SECURITY ENGINEER / SYSTEM ADMIN.

ASELSAN INC. | SEPT. 2007 - JULY 2010

Role: IT System Administrator in a group of 10 domain experts

- IT System Administrator for Network Security
- Management of Firewalls, Anti-virus Infrustructure, Wireless Network, Network Switches and SMTP Servers (Windows, Linux)
- Development of scripts to be deployed to network (VBScript, Batch Script)
- Preparation Online Education for End Users (ASP .Net)

EDUCATION

Ph.D. ELECTRICAL and ELECTRONICS ENGINEERING (3.28 / 4.00) - 2015 WITDRAWN

MIDDLE EAST TECHNICAL UNIVERSITY, ANKARA | 2012 - WITHDRAWN 2015
Major: Control Theory & Minor: Power Systems

Thesis Subject: Design of Novel Navigation Filters and Conducting their Performance Tests in a Multi UAV System

M.Sc. ELECTRONIC and COMMUNICATION ENGINEERING (CGPA: 3.64 / 4.00)

CANKAYA UNIVERSITY, ANKARA | 2008 - 2011

Thesis Subject: Development of a Combined Air Data and Angle of Attack/Stall Warning Computer

B.Sc. ELECTRICAL and ELECTRONICS ENGINEERING (CGPA: 2.81 / 4.00)

MIDDLE EAST TECHNICAL UNIVERSITY, ANKARA | 2003 - 2007
Undergrad Project: Slalom Robot

CERTIFICATES / TRAININGS

Software Architect	**iSAQB CPSAFL Software Architecture**
Security Tester	**OPST Professional Security Tester**
Microsoft	MS6420: Fundamentals of a Windows Server 2008 Network Infrastructure and Application Platform (08 - 11 JULY 2008)
Microsoft	MS6416: Updating your Active Directory Technology Skills to Windows Server 2008 (03 - 04 JULY 2008)

Microsoft	MS5050: Recovering Messaging Servers and Databases using Microsoft Exchange Server 2007 (26 JUNE 2008)
Microsoft	MS5049: Managing Messaging Security using Microsoft Exchange Server 2007 (25 JUNE 2008)
Microsoft	MS5047: Introduction to Installing and Managing Microsoft Exchange Server 2007 (23 - 24 JUNE 2008)
Microsoft	MS2810: Fundamentals of Network Security (2 NOVEMBER 2007)
BIMEL Network	LAN/WAN properties with their connection techniques (24 - 26 OCTOBER 2007)
METU Technocity	Product Development and Intellectual Property (19 - 21 JUNE 2006)
METU Technocity	Innovation and entrepreneurship (05 - 09 JUNE 2006)

COMPUTER SKILLS

Programming	C#, C/C++
Testing Frameworks	MSTest, Moq, Rhino Mocks, CUnit
Operating Systems	Windows, Linux
Communication Protocols	RS232/422/485, ARINC429, MIL-STD-1553, Modbus, CAN, TCP/IP, UDP, SOAP, SPI, I2C
Source Control	TFVC, Git (Azure DevOps CI/CD)
Tools	Microsoft Visual Studio, LabWindowsCVI, NI TestStand, VSCode
.NET	WinForms, WPF, WCF
Engineering Tools	Doors (DXL), ClearQuest, Coverity, MATLAB/Octave, VMware, HPQC, SAP, Docker
Database	SQL
Other	WiX Toolset, HTML, CSS

ACHIEVEMENTS

METU-Techno city YFYI (New Ideas New Businesses) Contest 2006 - 3rd Team

Turkey University Central Examination (OSS-2002) 389th (Ranking) among ~1.5m candidates

Turkey Academical Personnel Graduate Examination (LES-2006) 376th (Ranking) among ~100k candidates

LANGUAGES

Turkish	Native
English	Fluent in spoken and written
German	Intermediate