



Zvika Meiseles

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SUMMARY

Software engineer with 20 years of experience in a vast range of software development fields, ranging from low-level driver development and hardware integration to Win32 UI and bash scripting. Experience with Windows and Linux development environments and server management.

Able to analyze, understand and resolve complex software problems quickly.

Self educated and fast learner.

Personal interest in embedded projects, low level programming, close hardware interaction and reverse engineering.

CTF player, focus on reverse engineering. FlareOn 2018 participant and 2019 finisher.

EXPERIENCE

Senior software engineer, LANDA digital printing

Rehovot, Israel — 2018-Present

Design and implement a software component for real time image acquisition and analysis of printed pages.

In charge of all project layers, including image acquisition board integration, multi-threaded image-processing algorithm execution and printer communication.

Real-time C++/Windows.

Python software engineer, SAIPS

Tel-Aviv, Israel — 2017-2018

Software and infrastructure engineer, working on Ford's AV project as part of the offline environment Mapping team.

High Scalability Python/Docker environment.

Hands-on Agent R&D team leader, CorrelSense

Tel-Aviv, Israel — 2010-2018

Lead a team of 3 strong developers.

In charge of the 2nd generation agent component for SharePath™, including software architecture, feature implementation, maintenance releases and software support.

Accomplishments

- 3rd party API tracking.
- Implement an IIS and Nginx modules for activity monitoring.
- Implement modules for Oracle OCI and Informix API tracking.
- Design and implement a PHP extension for activity monitoring and method interception.
- Bash scripting system for automated agent testing.
- Multiplatform software packaging.
- Hands-on feature and component implementation.
- Debug and resolve complex customer problems (WinDBG, gdb, dbx, mdb).
- Help architect complex customer solutions.
- DevOps: 3rd party software installation and configuration for R&D purposes, python, docker.

Senior developer, Agent R&D team, CorrelSense

Herzliya, Israel — 2007-2010

Design and implement the agent side of SharePath™, a multi-platform application performance monitoring system from scratch.

Accomplishments

- Design and implement a Linux kernel module for real-time network communication

monitoring and analysis.

- Design and implement protocol parser library.
- Network communication protocol reverse engineering and analysis.
- Implementation of network protocol parsers according to specifications.
- Design and implement a multi-platform (Windows, Linux, HP-UX, Solaris, AIX) user-mode agent for real-time in-process monitoring and network communication analysis.
- Win32 API tracking.
- Design and implement a .NET IL code-rewriting profiler for method interception.
- Reverse engineering of Java and C# code.
- Design and implement an Internet-Explorer BHO for HTTP/S request monitoring.

Software engineer, Image processing R&D team, Negevtech

Rehovot, Israel — 2005-2007

Design and implement a 2nd generation Real-time image processing software for a wafer-inspection machine, developed in C++/DCOM/Win32 environment.

Accomplishments

- Implement kernel driver (WinXP) for a 2nd generation image-acquisition board using proprietary hardware.
- Implement core-components in 2nd generation IP software (C++, Win32, OOP).
- Maintain and troubleshoot 1st generation IP software using Matrox Image processing boards.

Project manager, IDF

Tel-Aviv, Israel — 2003-2004

Lead the development of a web-based knowledge management and messaging application.

Java software engineer, IDF

Tel-Aviv, Israel — 2002-2003

Software developer in an enterprise-scale J2EE based messaging platform using Websphere/MQSeries environment.

Accomplishments

- Implement an HTML based MQ monitoring tool.
- System maintenance and programming.

System software developer and administrator, IT department, IDF

Tel-Aviv, Israel — 1999-2002

System administrator in charge of the unit's Windows servers (IIS, Exchange).
Software developer for IT department.

Accomplishments

- Developed distributed monitoring software for MS-Windows servers.
- Developed auxiliary user-level OS integration code for general use.
- Windows servers system administration and troubleshooting.
- Windows servers and network configuration and capacity planning for new systems.

Embedded software developer, Elbit systems

Haifa, Israel — 1995-1999

Embedded systems programmer using a variety of operating systems (proprietary, VxWorks,

Windows CE) for several military systems.
Driver developer for Win95, NT and CE.
BSP for WinCE.

Accomplishments

- Implement a Win32 military communication network simulator.
- Design and implement a WinCE boot-loader and display driver.
- Proprietary x86 embedded system maintenance and development.
- Develop a communication driver (VxWorks) for a proprietary military targeting computer.

EDUCATION

Technion - Israel Institute of Technology

B.Sc. Electrical engineering — 1995-1999

Specialization in software computer engineering, hardware computer engineering and digital-signal processing.

INDEPENDENT PROJECTS

- MPEG-2 video relay Win32 service using video protocols (RTSP, RTP, MPEG-2 TS) and extensions to various 3rd party libraries (Live555, libVLC) with SNMP MIB monitoring.
- Image manipulation library using existing open-source libraries (libvips, libpng), including implementing features and extensions to the open-source libraries.

INDEPENDANT COURSES

- Malware analysis (Pluralsight)
- Control of mobile robots (Coursera)
- Win32 Programming
- Enterprise Java Bean Programming
- Websphere application server
- WDM Device-drivers for Windows XP
- Object oriented programming in C++
- Advanced Data Communication (IDF)
- Advanced cryptography (IDF)

SKILLS

- Languages: C/C++, x86 Assembly, Python, Java, C#, Shell scripting
- User level unix development (Linux, Solaris, AIX, HP-UX)
- Linux kernel development
- Windows development - User and Kernel level
- Low level understanding of network communication protocols (Layer 3-7)
- Protocol analysis
- Reverse engineering and code analysis
- Close hardware integration

LANGUAGES

- Hebrew - native language
- English - fluent

REFERENCES

Available upon request.