Asa Bornstein

asaborn@gmail.com · 0542266536
https://www.linkedin.com/in/asa-bornstein-b0327a3

Software Team leader and M.Sc. Security Researcher from Ben Gurion University of the Negev.
As an experienced Software Team Leader and Scrum Master, I possess extensive leadership and communication capabilities combined with vast technical expertise.
In my cyber research, I focused on applications of machine learning in network analysis. In addition, I hold strong foundation in cryptographic protocols, malware analysis, exploitation, attack vectors and evasion techniques.

Technical Skills:

- Data Science: Python and data science-related libraries as well as ML/DL frameworks
- Software engineering: OOP, Design Patterns, Agile Development, TDD, CI
- Full proficiency in C++/C#/Python in various OS, Academic knowledge in Java/intel x64/x86 Assembly
- Software Architecture: Cross platform, distributed, multi-layer, multi-threaded and multi-processes.
- Malware analysis: Static and Dynamic / Reverse engineering
- Security exploitation: Code injection and side channel attacks.
- Cryptography: Theoretical and practical expertise in asymmetric/symmetric encryption protocols.

Professional Experience:

2018-Current | Ben Gurion University| M.Sc. Cyber Security Researcher

- Cyber Research Area: Applications of machine learning in network analysis.
- Thesis title: "Machine-Learning Based Objective function selection for community detection"
- Thesis advisor: Prof. Danny Hendler.

Technologies used: Python, scikit-learn, keras, pandas, numpy, C++, Java, High Performance Computing

2016-2018 | HP INDIGO| Software Team leader and Scrum master

HP Indigo manufactures digital offset printing presses.

- Leading a team of four engineers within the print controller group, a part of the Indigo's Digital Front End.
- Managing SW content, milestones, tracking, etc
- Leading wide cross development features both as scrum master/technical leader
- Responsible for team members' professional growth and career path

2008-2016 | HP INDIGO | Senior Software Engineer

- Leading architect and developer of both high and low redesign for the new iPC Architecture
- Developing multi processes/multi-threaded features in C# and C++ Managed/Unmanaged environment
- Employing test-driven development practice which significantly reduced customer escalations
- Leading massive integrations with other Indigo teams across the globe
- Writing powerful .Net infrastructures and modules underneath C++ legacy interfaces
- Leading task forces for improving customer experience such as solving performance gaps across the system

Technologies used: .Net CodeDom, MSTest, Typemock, XSD/XML, C/C++/CLI, C#, Rest API ,(WCF) SOA, TPL

2006-2008 | Negevtech | Software Engineer

Negevtech specializes in optical wafer inspection for the semiconductor industry.

- Developing software modules for management and control of hardware components, including both applicative layers and down to the low level from scratch in C# and C++ Managed/Unmanaged environment
- Developing algorithms for control and synchronization of the hardware components.
- Implementing various communication protocols for Motion controllers such as CAN, RS232 and TCP/IP

Technologies used: MSBUILD, COM/DCOM, NUNIT, XSD/XML, C/C++/CLI, C# (WCF) SOA

2005-2006 | Motorola solutions| Software Engineer

Design and development in C++ over Linux, of Mediation infrastructures for Network Management Systems (NMS) of cellular networks.

Technologies used: Perl, SQL, Oracle DBMS, SNMP, C++

1998-2001 | IAF – Flight simulators| Software programmer

Skyhawk simulator Programmer.

Programming simulation, control, management and detailed graphical display software modules.

Technologies used: C/C++/VC++/MFC/ Open GL, Assembly on both Windows and Unix platforms.

Education

2018-2021 | Ben Gurion University, Beer Sheva | M.Sc. Computer Science - Thesis, Cyber Security

2001-2005 | Ben Gurion University, Beer Sheva | B.Sc., Software engineering