

# Arkady Miasnikov

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## Software Engineer experienced in leading development projects from inception to full implementation

Extensive experience in designing and developing mission-critical backend systems, automated trading systems, and multi-threaded applications. Proficient in optimizing system performance, low-level programming, and integrating hardware with software. Strong expertise in reverse engineering, kernel-level development, and debugging complex backend systems. Technology-focused with a broad business perspective, and exceptional problem-solving abilities. Tools & Technologies: Linux, Go, Python, C, AWS, k8s, SQL.

## Professional Experience

### 2023-present: Software Engineer - Endotech

- Collaboratively designed and developed custom momentum indicators and signal filters for specific market conditions, enhancing trading performance.
- Translated and customized multiple indicators from PineScript to Go, improving their efficiency and functionality.
- Developed indicators that are a central part of the company's trading algorithms.

#### Technologies & Programming Languages

Go, Python, ClickHouse, SQL, AI

### 2022-2023: Software Engineer - HiAuto

- Participated in the maintenance of the computerized drive-thru order-taking system as part of an international team to ensure operational efficiency and reliability.
- Enhanced business analytics tools by integrating data and troubleshooting systems, improving decision-making processes.
- Ensured continuous operation of on-premises devices, addressing technical issues promptly.

#### Technologies & Programming Languages

Python, BigQuery, Redis, SQL, AI, k8s, Azure, Docker

### 2018-2022: Software Engineer - Cyren

- Participated in the collaborative design and development of email and network security products, contributing to a increase in threat detection accuracy.
- Maintained a complex SaaS system, integrating a range of popular software products seamlessly.
- Developed advanced phishing and spam detection engines.

- Initiated and prepared multiple POCs, including headless browsers, image recognition services, fast Hamming distance calculations, and locality-sensitive hashing.

#### **Technologies & Programming Languages**

Go, C++, Python, Elasticsearch, Redis, Apache Kafka, Prometheus, Grafana, Kibana, Megalog, Jaeger, SQL, k8s, AWS, Docker, AI

#### **2016-2018: Software Engineer - Secdo**

- Defined, designed, and developed Linux kernel probes using SystemTap and eBPF to monitor user space activity with minimal system impact.
- Created a high-performance solution to analyze millions of system events per second on multicore systems.
- Contributed to Windows kernel development, including driver code and user space integration for efficient data collection.
- Optimized data processing workflows and developed behavioral models in collaboration with the security research team.

#### **Technologies & Programming Languages**

Python, C/C++, Linux Kernel, SystemTap, eBPF, Windows kernel, Vertica, SQL

#### **2012-2016: Software Engineer - Megabridge**

- Developed a video monitoring and control system for HLS, including hardware verification and low-level embedded firmware development.
- Designed drivers and significant firmware components for the BDSL product line, including Java-based web management.
- Led bring-up projects for various HW platforms, customizing Linux root file systems using Yocto.
- Established the company's automatic build infrastructure and continuous integration system.

#### **Technologies & Programming Languages**

C/C++, Python, Linux kernel, U-boot

#### **2009-2012: Software Engineer - Texas Instruments**

- Developed firmware for 802.11 ASIC, including pre and post-silicon verification of WLAN devices.
- Participated in WLAN Linux kernel development and defined/developed utilities for firmware build and debug in Linux.
- Led a streamlining process that improved productivity by 30% by advocating the replacement of ClearCase with GIT.
- Established a wiki-based search system that improved access to the company's knowledge base.

#### **Technologies & Programming Languages**

C/C++, Python, Linux kernel, ASIC, Bare metal

#### **2005-2007: Software Engineer - Broadlight Ltd.**

- Contributed to the development of the world's first fully integrated GPON chip.
- Supported the hardware team in post-production verification and pre-fab processes.

- Prepared firmware for design verification, post-production chip verification, and a series of drivers.

### **Technologies & Programming Languages**

C, Verilog, Linux kernel, Specman, Bare metal

### **2001-2004: Software Engineer - Terayon Israel/USA**

- Led a team of 5 engineers in the design and development of DSLAM systems, INTERCARD communication BSP for vxWorks, and various hardware drivers.
- Delivered customer-tailored systems, some of which are still in operation.
- Conducted employee training programs.

### **Technologies & Programming Languages**

C, Linux kernel, Bare metal

### **1995-2000: Software Engineer - TDSoft**

- Developed infrastructures and low-level drivers for embedded real-time systems in C, C++, and Java.
- Participated in several development projects, including a Windows management system for strategic customers such as Deutsche Telekom and ECI.
- Designed and implemented significant parts of a V5 Class 5 switch (LE) simulator with ISDN support and developed GUI management for the simulator.

### **Technologies & Programming Languages**

C/C++, Java, Bare metal, RTKernel, pSOS

## **Education**

B.A. in Business Administration - Netanya Academic College (2007-2009)

Software Practical Engineer - Tel Aviv University School of Practical Engineering

Physics Department - St. Petersburg State University (1987-1989)