



## Michail Karatzidis

### Middle Software Developer

#### SUMMARY

A seasoned software engineer with extensive experience in developing, maintaining, and testing systems, particularly with the Open Source SONiC OS at Nokia. Proficient in a wide range of programming languages including Rust, C/C++, Python, TypeScript, Lua, and scripting with Bash. Demonstrated expertise in Linux kernel development, network protocols, containerization with Docker, and CI/CD pipelines using Gitlab. Contributed significant automation improvements through tools like Ansible, Prometheus, and Grafana. Additionally, has a background in service desk support with a focus on Azure and Active Directory, and demonstrates ongoing commitment to professional development as shown by their technical degree from Hive Helsinki, with a strong foundation in algorithms, network programming, and game development.

#### TECHNICAL SKILLS

<b>Main Technical Skills</b>	Expertise in C/C++ (4 yr.), Go (3 yr.), GitHub, Linux, Bash (4 yr.)
<b>Programming Languages</b>	Go (3 yr.), JavaScript, Python (3 yr.), x86 Assembly (3 yr.)
<b>.NET Platform</b>	Azure (3 yr.)
<b>Mobile Frameworks and Libraries</b>	LLDB
<b>Data Analysis and Visualization Technologies</b>	k-NN
<b>Security</b>	Wireshark
<b>Cloud Platforms, Services &amp; Computing</b>	Azure (3 yr.)
<b>Deployment, CI/CD &amp; Administration</b>	Active Directory, Ansible, CI/CD
<b>Scripting and Command Line Interfaces</b>	Bash (4 yr.), PowerShell
<b>QA, Test Automation, Security</b>	Debugging, Wireshark

<b>Virtualization, Containers and Orchestration</b>	Docker
<b>Methodologies, Paradigms and Patterns</b>	FDD, OOP
<b>Third Party Tools / IDEs / SDK / Services</b>	GDB, Office 365
<b>Version Control</b>	GitHub
<b>Platforms</b>	LCDP
<b>Operating Systems</b>	Linux, Windows
<b>Project Management &amp; Administration</b>	Project Management
<b>Mail / Network Protocols / Data transfer</b>	tcpdump, TCP/IP
<b>Other Technical Skills</b>	Containers, eBPF, Unreal Engine

## WORK EXPERIENCE

### Software Developer, SONiC OS Development

**Duration:** January 2025 - ONGOING

**Summary:** Participation in the development and maintenance of an open source router/ switch operating system, ensuring hardware-software integration, and creating automation and testing tools.

**Responsibilities:** Developing and debugging Linux Kernel modules, automating processes, managing traffic, and monitoring systems.

**Technologies:** Linux, Bash, Docker, Ansible, Gitlab CI/CD, Prometheus, Grafana, network protocols, Rust, C/C++, Python, Typescript, Lua

### Service Desk Specialist, Azure System Integration

**Duration:** February 2020 - August 2023

**Summary:** Integration of a client's systems from the old exchange to new Azure systems, resolving AD issues, and improving administrative management through automated tools.

**Responsibilities:** Active Directory and Azure administrative management, solving critical issues and automating processes.

**Technologies:** Powershell, Azure, Python

## PROJECTS:

### --FT\_IRC

**Summary:** Development of an IRC server to facilitate real-time messaging, join group channels, and exchange direct messages.



**Responsibilities:** Programming and implementation of IRC server features.

**Technologies:** C++

#### --Minishell

**Summary:** Creation of a Unix shell resembling bash, focusing on learning shell operations and behaviors.

**Responsibilities:** Coding a functional Unix shell from scratch.

**Technologies:** C

#### --MiniRT

**Summary:** Building a simple ray tracer to simulate realistic light interactions with virtual objects.

**Responsibilities:** Developing a ray tracer to generate graphics images.

**Technologies:** C

#### --Hexpansion

**Duration:** January 2024 - Current

**Summary:** Designing a 3D strategy game as part of a 10-week startup accelerator initiative.

**Responsibilities:** Game development using advanced graphics and gaming engine.

**Technologies:** Unreal Engine 5.3

## EDUCATION

- **Hive Helsinki**
- Technical Degree in coding with a curriculum covering Algorithms, Network Programming, Game Development, Unix Development, Frontend Development, Backend Development.
- October 2022 - September 2024

