



# ADAM HOMOLYA

Software Engineer

✉ adam.homolya@gmail.com    📧 adam.homolya@gmail.com  
☎ +36 30 728 1978    🔗 [Linkedin](#)



## INTRODUCTION

I'm an enthusiastic software person with 6 years of professional experience and 10 years in total with software and internet applications. I'm interested in large scale computer systems and in general in complex problems, that involve some scientific studies or reasoning beyond bare coding. In most of my jobs so far I've been dealing with high-demand server-side applications and the related technical infrastructure. I can confidently say I'm quite familiar with both the corresponding programming and operations trends and practices. In my free time I'm actively learning about Data Science and Machine Intelligence, and I also think myself to be a functional programming geek.

*AdamHomolya*



## WORK EXPERIENCE



Lead Software Engineer  
NeocoreGames, Budapest

Nov 2016 - Present

Currently working at NeocoreGames as an engineering lead for our online services department, leading a team of 4 people.

Having full ownership over our online platform for gaming services and I have a key role in making decisions over technologies and third-parties to work with. Orchestrated the transition to cloud-based solutions (Amazon ECS) from a self-hosted approach, and successfully released our latest title on Steam with the new backend. We implement most of the server-side business logic in NodeJS and we use MongoDB as a database.

Volunteered to carry out an extensive reform on the ways the company ships software. Migrated the entire codebase (Mainly C++) to Git, set up automatic multi-platform builds and tests and introduced proper issue tracking. With these we managed to significantly reduce bug rates and was able to set up an iterative release cycle.



Senior Software Engineer  
Flynt, Zürich

Jul 2016 - Nov 2016

Worked as a contractor for Flynt, a startup bank in Switzerland, exclusively for super-rich individuals. We used the Scala/Akka stack along with Cassandra and MySQL for building a banking engine from scratch. Projects as follows.

Authentication System (full responsibility). Designed, developed and delivered software implementing the 3-way authentication process of Flynt (Scala web application).

PKI Services. Developed client certificate and private key management system as EJBCA plugins (written in Java).

Deployment System. Due to lack of workforce, joined the Operations team. Wrote management scripts and numerous Ansible roles to automate the deployment of our software stack via VMWare vSphere.



Software Engineer  
Activision, Dublin

Dec 2014 - Jul 2016

Worked in the Platform Services team of a subdivision called Demonware. Developed a shared service platform (Erlang and Python) and the related software backends for AAA online gaming (470 million users, 300K requests/s). Some notable projects as follows.

Service Discovery for MySQL (full responsibility). Designed a way of mapping the MySQL replica sets to human readable identifiers. Developed a background service that automatically configures HAProxy to route services to the appropriate machines holding the corresponding data. The mappings were stored in Zookeeper and could be updated in real-time with zero downtime in an admin console.

Backpressure (full responsibility). The project was to employ a control mechanism between the load balancer and the internal service endpoints to slow down request rates and perform retries if needed, so that our users experience better overall service quality.

Matchmaking. Worked on a service that matches players together based on their skills in real-time. Developed the timeout system along with monitoring. Made research on optimization algorithms for solving the problem (clustering, fuzzy-search, space partitioning).

Erlang Bytecode Encryption (full responsibility). Had to add an encryption/obfuscation mechanism to the Erlang compiler and modify the VM to be able to execute the encrypted bytecode.



Software Engineer  
LogMeIn, Budapest

Aug 2013 - Dec 2014

Developed a cloud storage solution similar to Amazon S3. The software had two main layers, a frontend that manages user data and exposes a user-facing REST API (ASP.NET, C#, Cassandra), and a backend that allows CRUD operations on data blocks distributed on a cluster of machines (C++, C#). Developed the backend layer with a team of 4 engineers. The key idea behind the storage system was to achieve redundancy through the RAID-6 algorithm instead of replication like most other solutions do. Some responsibilities as follows.

PoC-ing and research. Researching libraries, file systems and algorithms to use. Creating PoC software, performing benchmarks, summarizing and comparing them, documenting results.

Design and Development. Designed the CRUD API for the backend system using a subset of HTTP. Wrote several internal software components in C# and C++ with a focus on doing proper async-io and maximizing disk performance.

Mentorship. I had the opportunity to mentor some of my colleagues coming from a C++ background in the C# and .NET world.



Software Engineer  
Libri-Bookline

May 2012 - Aug 2013

Started to work for Bookline as an undergraduate. Worked with a team of developers on the in-house ERP system of the company, a C++ desktop application with a central MSSQL backend. The main task was to do a transition of components to open source alternatives. Ported the formerly Windows-only desktop application to Linux. Migrated the MSSQL database and stored procedures to Postgres. Factored out much of the business logic to several smaller Python scripts.



## EDUCATION

MSc in Computer Science

2013 - 2014

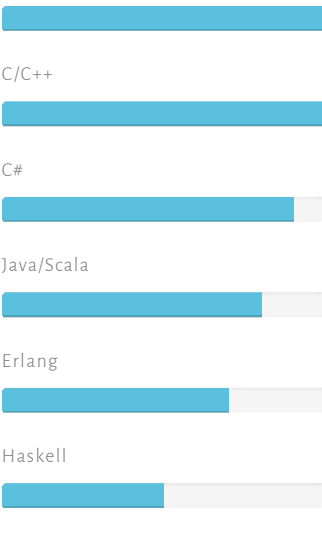
[Eötvös Loránd University](#)

BSc in Computer Engineering  
[Pázmány Péter Catholic University](#)

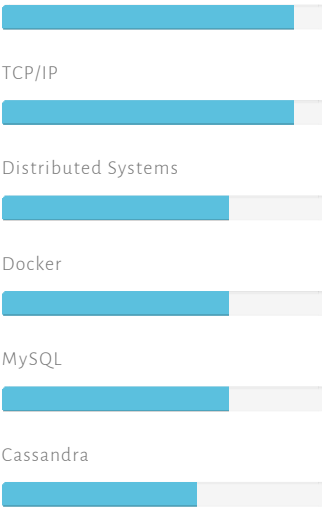
2009 - 2013



## PROGRAMMING LANGUAGES



## OTHER TECHNOLOGIES



## INDEPENDENT ACTIVITIES

Co-Founder  
[blex.io](#)

Co-founded Blex, a blockchain engineering and investment company in Hungary. Being mostly a passive member, doing occasional research on blockchain-based technologies, evaluating mining hardware and hunting for clients from around the world.

Open Source Contributions  
[PvPvN Community](#)

Contributed to the PvPvN [battle.net](#) server emulator application during high school and early college years. Ran a successful custom PvPvN server [kani.hu](#) that used to have tens of thousands of monthly active users between 2007 and 2011.



## RECOMMENDATIONS

Adam gave exceptional contributions to our data warehouse system. Despite his former C++ and Unix background, he caught up the .NET ecosystem to a near expert level within a short time, sometimes even mentored his team on the topic. He was able to build top quality software, meeting both our performance and quality requirements while having a keen eye on a robust system architecture and meeting deadlines.



Krisztián Kopasz  
VP of Engineering

I had a great time working together with Adam. While he is a rockstar developer, he also is an excellent person with a great sense of humour. He has a great curiosity for new ideas and plenty of common sense. I'm looking forward to working together with him again.



Péter Sághegyi  
Software Architect