Mikhail Mukhamatulin

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EMPLOYMENT

Deutsche Bank
Software Engineer, Associate

Jan 2019 - Present
Saint Petersburg, Russia

- Standardized inter-process communications methods between micro-frontend applications by developing gRPC message broker service in C# and promoting its adoption across teams
- Implemented REST API reverse-proxy using ASP.NET for gRPC services of frontend applications, which drastically simplified a mocking of communication between apps for E2E testing and increased code coverage
- Ported several WPF views of monolith C# desktop application to micro-frontend Typescript Angular apps, which reduced initial application size and gave the ability to independently deploy those view components
- Decreased time of opening web-based application popups from 10 seconds to less than 2 in 95% of cases, by creating preload and reuse mechanism of renderer processes in Chromium Embedded Framework
- Developed extension JavaScript API which gave the ability to applications launched inside the embedded browser of desktop client to manipulate the browser window properties and interact with applications platform
- Fixed various critical bugs of CEF running on client's restrictive environments and, thus, unblocked migration of several applications and removed the company's reputational risks

Swordfish Security
Full Stack .NET Developer

May 2018 - Dec 2018
Saint Petersburg, Russia

- Developed a secure cross-platform local secrets' storage service for macOS and Windows on .NET Core, which simplified and sped up desktop client application development
- Substantially increased application testability and shortened release cycle from 3 months to 2 weeks by leading MVVM adoption inside team for desktop client application development
- Implemented a cross-session caching mechanism of client-server requests, which has reduced the desktop application's startup time by 80%
- Won first place on the company's internal hackathon by creating an experimental iOS application to install and update security certificates on mobile devices using animated QR-codes

Belkasoft
Software Engineer

Oct 2015 - Apr 2018
Saint Petersburg, Russia

- Decreased disk image scan time by 22% and reduced application's CPU load by 17%, by implementing an asynchronous C# API for reading data from the various file systems and disk images
- Designed and developed the application's dashboard page with charts of the latest disk image scans, which was widely used in the application's promotion materials and greatly increased the appeal of the product to customers
- Separated a pipeline of building Lucene search index by moving it to a dedicated process that handles a persistent job queue and, thus, improved reliability and simplified workflow of disk image scan
- Developed SQLite3 database file parser with support of reading freelist, unallocated space, rollback journal, and write-ahead log, which gave access to deleted entries and allowed to work with damaged database files
- Created an alternative implementation of Android Debug Bridge protocol, which allowed to capture whole mobile device storage image via USB for the following data analysis

EDUCATION

Saint Petersburg State University
Bachelor of Science in Applied Mathematics and Computer Science | GPA: 3.76 (4.76/5)

Sep 2012 - Jul 2016
Saint Petersburg, Russia

PROJECTS

AnkiOneClick | Popup dictionary extension for Chrome which allows creating unknown foreign word flashcards with translations for Anki (TypeScript, React, Python, Flask)

SpbBuildingAgeMaps | Data Visualization of buildings ages in Saint Petersburg based on information parsed from several sources and built using OpenStreetMap and CartoDB (C#, SQLite)

TECHNICAL SKILLS

Languages: C#, TypeScript, JavaScript, Python, C++
Databases: MSSQL, MySQL, SQLite
Frameworks: WPF, Xamarin, ASP.NET, React, Angular, Backbone.js
Technologies: CEF, Node.js, Electron, gRPC, Lucene