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Summary:

Software engineer with experience in building large scale distributed storage and computation systems.

Background in networking, storage, distributed scheduling algorithms, distributed consensus, performance and resource use optimizations.

I'm looking for a developer position that requires building scalable distributed systems.

Skills:

- Experience with all stages of the product cycle
- Strong design, development, testing, and debugging skills
- Programming languages:
    - C / C++ (15 years of experience), C#, x86 / x64 assembler
    - Jscript, python, awk, powershell, other scripting languages
- Knowledge of many areas of software engineering, in particular:
    - Distributed storage and computation systems
    - Network protocols
    - Performance, stress, and scalability testing and analysis
    - Database technologies

Employment history:

07/2007 – present time : Senior SDE, Bing, Microsoft corp.

Cosmos team is building distributed storage and execution environment for Bing.

I was supporting and improving RSL library, Paxos protocol implementation that is used in multiple services across Bing. I implemented multiple reliability and performance improvements that allowed higher utilization of cluster resources.

I worked in execution team where I implemented scalability improvements that allowed to significantly increase volume of data processed by single job. I also implemented throttling solution that reduced wasted cluster resources by avoiding network congestions while maintaining high system utilization.

I worked in a team of 3 people where we designed and implemented centralized process scheduler for big cluster. This scheduler is capable of making tens of thousands of scheduling decisions per second while ensuring customer resource allocation fairness and optimizing for data locality. We filed patent application on results of this work.

I worked on storage stack components where I improved scalability of cross-cluster data replication.

I received 2 Gold Star awards while working in this group.

Skills: distributed systems design/algorithms, C++, C#, high performance network applications

09/2005 – 07/2007 : SDE, Forefront client security, Microsoft corp.
Forefront client security provides antivirus/antimalware protection for PC workstations that can be controlled over the network. I worked in a team that was developing Vulnerability Assessment component, it collects information about computer's configuration from different sources and evaluates computer's vulnerability level.

While working on this team I designed and developed number of features including ScanJob, and manifest updates. I optimized component's memory usage and performance. I worked with outsourcing team on implementing object processors and checks definitions.

Skills: C++, C#, scripting, COM, XML, WUA API, WMI.

05/2001 – 09/2005 : SDET, DataWorks team (MDAC) , Microsoft corp.
MDAC is client stack APIs that provides access to Microsoft SQL server.

I was testing network protocol formats and different network protocols used by MDAC, protocol encryption. I designed and developed man-in-the-middle testing framework which allows to implement test scenarios that involve manipulation of the network data that is sent between server and client, network failure injection.

Skills: C++, C#, scripting (primarily JScript), developing high performance network applications, COM, SQL, database access APIs (ODBC/OLEDB/ ADO).

02/2000 - 05/2001 : Software development engineer/lead, WebSci Technologies, Novosibirsk, Russia
WebSci Technologies was developing suite for designing and deploying dynamic database backed web applications.

I worked on layout engine and HTML/WML generation engine in runtime server and Java based designer client.

Skills: C++ for Windows/Linux/Unix, XML (XSLT), HTML (Dynamic HTML, CSS), JavaScript, Java.

07/1997 - 02/2000 : Various positions, Novosibirsk, Russia

Hobby projects:

Magnet board: Windows phone 7 application with Google App Engine backend
The goal of the project was to develop scalable client server application with close to real time updates. Also the goal was to learn Google App Engine platform and smartphone networking capabilities.

Flipbook : Windows Phone 7 application
http://windowsphone.com/s?appid=6fd17f47-f425-e011-854c-00237de2db9e

Finger painting animation application. The goal of project was to learn WP7 platform, GPU programming.

Paxos implementation
The goal of the project was to understand paxos protocol better and to experiment with different variants of protocol. Application included emulation of faulty/slow network with faulty/slow nodes.

LiveJournal crawler
The goal of the project was to experiment with algorithms on large directed graphs. As part of this project I've implemented paged file storage with cache layer, atomic operations model, BTree/queue/stack collections on top of it, map/set on top of BTree, graph on top of map.

Education:

09/93 – 07/97 : BS in Applied Mathematics, Novosibirsk State University, Russia