

My awesome journey with Open Source

Adam Sitnik

About myself



Senior Software Engineer & Team Leader

- Maintainer
 - BenchmarkDotNet (2 300+ stars on GitHub)
 - Awesome .NET Performance (720+ stars on GitHub)
- Contributor
 - Core CLR
 - CoreFx Lab
 - Exceptionless.Net, ImageProcessor, protobuf-net, SignalR, Autofac, ServiceStack.Redis, LinqOptimizer, ClrMD, MSOS

The History of Open Source

You can make your own history!

Open your eyes!



Adam Sitnik @SitnikAdam · 23.07.2015



to me this was an eye-opening post

.NET/FRINGE/ @dotnetfringe

This post also explains why, even though Microsoft is hard core OSS these days, they're still not very present bit.ly/1gQCnGU

What small startup did for .NET OSS to develop a single app?

- Added full CQL3 collisions support to FluentCasandra
- Invented **Helios**, a high performance **server-side socket** library
- **Ported Akka to .NET**
- Implemented Marmur3 and HyperLogLog algorithms in C#

Are you using any OSS?

xUnit
Dapper
Autofac
JSON.NET
NHibernate
Quartz.NET
Ninject
SignalR
Serilog
NLog

Have you ever...

- Maintained OSS project?
- Implemented a new feature?
- Fixed a bug?
- Improved the performance?
- Improved the docs?
- Reported a bug? with a nice repro case?
- Or maybe introduced a bug ?

At this point of time

- I was anonymous .NET developer
- I knew I wanted to contribute to make a difference
- I had no idea how to start
- I did not know any contributors
- I wasn't even dreaming about speaking at the Big Conferences...
- Not to speak about drinking a beer with my Gurus!

When your Guru starts a new project..



Joe Duffy @xjoeduffyx · 15.07.2015

Slice: a type for dealing with buffers inspired by building systems in C#. github.com/joeduffy/slice... A work in progress but the gist is there.

🌐 Przetłumacz z języka: angielski



[joeduffy/slice.net](https://github.com/joeduffy/slice)

slice.net - A simple C# type for working with contiguous buffers.

github.com



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My first contribution: what it was

- Build the benchmark in the Release mode
- Perform the Jit Warmup
- Cleanup the memory after every iteration
- One micro optimization

Follow the coding standards (CONTRIBUTING.md)



joeduffy commented on `src/Slice.cs` in a97bb49 on 19 Jul 2015

Style nitpick, indentation looks off; maybe a tabs vs. spaces issue?



joeduffy commented on `src/Slice.cs` in a97bb49 on 19 Jul 2015

Style nitpick, errant spaces.

You can get a code review from your Guru!!!

Choose the right Project

- Look for something that excites you!
- Prefer tools that you are familiar with
- Make sure they are looking for help!
- Make sure it's active!
- Make sure you are ok with the license!

How to grab an issue?

Filters Labels Milestones

☐ Clear current search query, filters, and sorts

☐ 15 Open ✓ 0 Closed

Author ▾ Labels ▾ Milestones ▾

☐ Simple API for path customization of Benchmark **up-for-grabs**
#377 opened 18 days ago by AndreyAkinshin

☐ [Minor bug] Benchmark switcher: incorrect me
#365 opened 28 days ago by ig-sinicyn v0.10.x

☐ Benchmark just stops (Antivirus problem) **bug**
#364 opened 28 days ago by Konklaw

Filter by label

Unlabeled

☒ up-for-grabs

Part of a daily job routine

Found a bug in OSS library?

- Report it!
- **Provide a repro case!**
- Is it blocking your job?
- If so, can you fix it?

Need new feature?

- The existing code base saved your company a LOT of time.
- So why don't you extend it?

Just do it!

Don't give up!



Ben Adams contributions to Kestrel HTTP Server (as of 2017-10-01 18:01)



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113



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Use the tools that are free for the Contributors



Travis CI



AppVeyor



TeamCity

Believe in yourself

- How do you know if you are good or not?
- Would you like to change job?
- Fork a project
- Pick up an issue
- Just solve it!
- Create PR

You get invited to speak at Conferences



Adam Sitnik <adam.sitnik@gmail.com>

You have been selected to speak at NDC Oslo 2017

2 messages

NDC Oslo <info@ndcoslo.com>

2 March 2017 at 16:26

Reply-To: NDC Oslo <info@ndcoslo.com>

Yes, You still get rejected ;)

Pair programming with the best



cesarbs on 28 Jan Member

@adamsitnik Would be glad to collaborate with you to get this more generalized and into BenchmarkDotNet 😊



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adamsitnik on 28 Jan

This week I am in Redmond for the MS LEAP, so we can even meet in person and talk about it ;) btw were you able to run this auto-generated dll? When I tried similar approach (to execute



cesarbs on 30 Jan • edited Member

Awesome! I'll send you an email so we can arrange when and where to meet.

Advantages for the employer

- You learn new things all the time
- You use new things at work to do better job
- You build a network which helps you when you are in need
- You can promote your company by doing great things in public



Getting the write access to your favorite tool



Adam Sitnik <adam.sitnik@gmail.com>

AndreyAkinshin added you to BenchmarkDotNet

1 message

Andrey Akinshin <noreply@github.com>
To: Adam Sitnik <adam.sitnik@gmail.com>

20 January 2016 at 11:22

You can now push to this repository.

View it on GitHub:

<https://github.com/PerfDotNet/BenchmarkDotNet>

When Guru use the feature you implemented

DOTNEXT

Москва
9 декабря


DotNext Moscow 2016 #dotnext | @goldshn <https://s.sashag.net/dnmoscow2>

Vectorization: strstr

```
// Simple, no-frills approach:  
return haystack.Contains(needle);  
  
// Vectorized version:  
__m256i first = _mm256_set1_epi8(needle[0]);  
__m256i last = _mm256_set1_epi8(needle[ns-1]);  
for (int i = 0; i < hs; i += 32) {  
    __m256i block_first = _mm256_loadu_si256(&haystack + i);  
    __m256i block_last = _mm256_loadu_si256(&haystack + i + ns - 1);  
    __m256i eq_first = _mm256_cmpeq_epi8(first, block_first);  
    __m256i eq_last = _mm256_cmpeq_epi8(last, block_last);  
    unsigned mask = _mm256_movemask_epi8(_mm256_and_si256(eq_first, eq_last));  
    while (mask != 0) { ... memcmp(haystack + i + first_bit_set_pos + 1, ... )  
}
```

| Method | Mean Time |
|--------|------------|
| Scalar | 1,872.2798 |
| SIMD | 202.1229 |

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DOT NEXT

LUXOFT RAVENDB DOT NEXT

Summary

- Plan minimum: report well described bugs.
- Contribute to something exciting at least once.
- Contributing should be a part of your daily job routine.
- Everybody gets rejected, so will you.
- You can benefit a LOT!
- You can sky rocket your experience and knowledge!
- You are not going to get paid for it.

Sources

- [The Profound Weakness of the .NET OSS Ecosystem](#)
- [Free Services & Tools for Open Source .NET Projects](#)
- [All Pull Requests by Ben Adams to Kestrel](#)
- [What it feels like to be an open-source maintainer](#)
- [up-for-grabs.net](#)

Questions?

Adam.Sitnik@powel.com

Slides: <http://adamsitnik.com/files/NorwegianITNight.pdf>

Thank You!