

Damir Ferizovic

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EDUCATION

KARLSRUHE INSTITUTE OF TECHNOLOGY (KIT)

Karlsruhe, Germany

MASTERS IN COMPUTER SCIENCE

Oct 2016 - March 2019

Thesis: [A Practical Analysis of Kernelization Techniques for the Maximum Cut Problem](#)

- Introduced new theorems and solved previously unsolvable Max-Cut instances.
- Implemented Max-Cut kernelization benchmark suite in C++ for the experiments.

 Published in ALENEX '20

 [Amtrix/fpt-max-cut](#)

BACHELOR IN COMPUTER SCIENCE

Oct 2011 - Sep 2016

Thesis: [Parallel Pruned Landmark Labeling](#)

- Built on top of novel research that used bit-parallelism to also include multithreading.
- Implemented benchmark in C++ for the experiments.

 [Amtrix/parallel-pruned-landmark-labeling](#)

RESEARCH ASSISTANT

May 2015 - Jan 2016

- Analyzed particle track reconstruction algorithms for the CMS device at the Large Hadron Collider in CERN.

CARNEGIE MELLON UNIVERSITY (CMU)

Pittsburgh, PA

EXCHANGE RESEARCH STUDENT

May 2014 - Jul 2014

- Worked with professor Guy Blelloch on parallel (shared memory) algorithms for my bachelor thesis.

SKILLS

C / C++	Parallelism
Algorithms	Unix OS
Data Structures	Networking
JavaScript	Node.js
TypeScript	Nginx

LANGUAGES

English German Croatian

EXPERIENCE

MICROSOFT | SOFTWARE ENGINEER 2 | March 2019 – Present

- Worked on Azure Front Door - Microsoft's modern Content Delivery Network.
 - Services such as Bing, Teams, OneDrive, Office365, and other strategic third-party customers rely upon it.
- Led a sizeable multi-semester investment for a ground-up redesign of AFD's Web Application Firewall and Rules Engine into a unified framework.
 - Extreme focus on performance – built on top of Nginx and written in C.
 - Drove everything from the inception of the idea to the production rollout.
 - Helped others build new features with it.
 - Made the framework configurable with Python scripting.
 - Reduced the size of configuration files by 90%.
 - Has processed over 100 billion live HTTP requests.
- Developed new in-memory data structures with constant time deserialization.
- Provided help to two teams to enact a layering of their Windows OS product.

MICROSOFT | SOFTWARE ENGINEERING INTERN | May 2017 – Aug 2017

- Created a new speech intonation feature in C++ for a Windows OS product.

MICROSOFT | SOFTWARE ENGINEERING INTERN | May 2016 – Aug 2016

- Created a new touch gesture system in C++ for a Windows OS product.

GOOGLE | SOFTWARE ENGINEERING INTERN | Sep 2014 – Dec 2014

- Worked at Google's search infrastructure on a new C++ tool to verify the connectivity of Google+ entities using MapReduce.

SAP | WORKING STUDENT | Aug 2013 – Jan 2014

- Performed my duties at the headquarters office in Waldorf, Germany.
- Worked on the development of an in-memory database – SAP HANA.

AWARDS

2019	1st	Internal Microsoft Hackathon
-	3 x Silver Medal	ICPC - North Western Europe Regional Contest (NWERC)
2015	1st	ICPC - German Collegiate Programming Contest (GCPC)
2015	1st	hackAthon: Games and Gamification
2014	1st	Microsoft Code Competition at KIT
2011	Bronze Medal	International Olympiad in Informatics (IOI)
2011	Silver Medal	Balkan Olympiad in Informatics (BOI)
2010	Bronze Medal	International Olympiad in Informatics (IOI)
2010	Silver Medal	Balkan Olympiad in Informatics (BOI)
-	3 x Top 3	Bosnian National Olympiad in Informatics (BHOI)
2019	Young Talent Award for outstanding MSc thesis, by SPP Big Data funded by the German Research Foundation	
2013	Deutschlandstipendium scholarship funded by the German government	
2011	Karlsruhe Information Science-Industry Scholarship (KIIS)	

Full list of awards: [damirferizovic.com/resume/awards](#)