

David Daharewa GUREYA

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Education

October 2016 - to date: **PhD, Erasmus Mundus Joint Doctorate in Distributed Computing (EMJD-DC)**, Universidade De Lisboa, Instituto Superior Técnico, Portugal & KTH Royal Institute of Technology, Sweden
Thesis title: *Resource Allocation for Data-Intensive Services in the Cloud*

2013 - 2015: **MSc, Information Systems and Computer Engineering**, Universidade De Lisboa, Instituto Superior Técnico, Portugal. **Final Grade:** 17/20

2013 - 2015: **MSc, Distributed Computing**, KTH Royal Institute of Technology, Sweden

2008 - 2012: **BSc, Computer Science**, University of Nairobi (Kenya), **First Class Honours**
Final year project: *Automatic language identification using N-Gram-Based Text Categorization* (Grade: A)

Work Experience

April 2013 - August 2013, October 2015 - September 2016: **Tutorial Fellow**, **School of Computing and Informatics, University of Nairobi, Nairobi, Kenya**

- Participation in the fields of teaching, research and development.
- **Courses taught:** Information Systems, Programming Methodology, Computer Network Technologies, Database Systems, Fundamentals of Computing and Networks, Web Content Design and Management, Operating Systems.

July 2015 - September 2015: **Research Engineer**, **Swedish ICT, Kista, Sweden**

- **Research topics:** Cloud computing, Cloud storage services, Elasticity controllers, Workload prediction, Online machine learning, Time series analysis.
- **Products:** **OnlineElastMan**, A self-trained Proactive Elasticity Manager for Cloud-based Storage Systems.

February 2015 - June 2015: **Master thesis student**, **Swedish ICT, Kista, Sweden**

- **Thesis Title:** *Self-trained Proactive Elasticity Manager for Cloud-based Storage Services*; Grade: A

April 2013 - August 2013: **Software Engineer**, **C4DLab, University of Nairobi**

- Research, capacity building and training, systems design and development.
- Organized and participated in technological boot-camps, workshops, meetups, and seminars within Nairobi.
- Involved in developing system prototypes, notably among them were Games for Learning (G4L), which were mainly targeting primary school children.

August 2012 - March 2013: **Software Engineer**, **Cellulant Corporation, Kenya**

- Requirements elicitation and planning, Solution analysis and design, Products Development and Maintenance. Developed web applications using **Yii PHP Framework**, MySQL (LAMP), CSS, JavaScript. Additionally, worked on USSD applications and developed Java daemons for a payments ecosystem.

April 2011 - July 2011: **Web Developer** (part-time, during undergraduate studies), **KORDA, Kenya**

- Part of a team which created a digital platform for the collation of data on cancer patients from multiple institutions and multiple collaborators in Kenya.

- Gain skills in: Javascript, CSS, HTML, PHP, MySQL.

Awards

- Erasmus Mundus scholarship (academic-merit based, awarded each semester of MSc).
 - Category A Erasmus Mundus fellowship for Erasmus Mundus Joint Doctorate in Distributed Computing (EMJD-DC).
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Skills

- Programming languages: C/C++, Java, Python, C#, HTML, PHP, JavaScript, Matlab, LaTeX, SQL(CQL), shell, OpenMP & MPI.
 - Version control systems: Git, Subversion, Mercurial.
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Publications

- "OnlineElastMan: Self-Trained Proactive Elasticity Manager for Cloud-Based Storage Services" was accepted and presented at ICCAC'16 and an extended version was published in the Journal of Cluster Computing
 - "Profiling for Asymmetric NUMA Systems" was accepted and presented at EuroDW'17!
 - "Asymmetry-aware page placement for contemporary NUMA architectures" is accepted and presented at SFMA'18
 - "Tackling memory asymmetry in NUMA architectures" was accepted and presented at INFORUM'18
 - "BWAP: Bandwidth-Aware Page Placement for NUMA Systems" was accepted and presented at IPDPS'20
 - "BALM: QoS-Aware Memory Bandwidth Partitioning for Multi-Socket Cloud Nodes" is under review
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Open-source Software

- BWAP: A library for dynamic page placement in NUMA nodes
 - OnlineElastMan: Online Elasticity Manager for cloud storage services
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Research Interests

- Cloud Computing and Datacenter Systems
 - Computer Systems and Architecture
 - Parallel and Distributed Systems
 - High Performance Computing and Optimization
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References

Prof. Vladimir Vlassov
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Instituto Superior Técnico
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