

Essam Algizawy

Curriculum Vitae

OBJECTIVE

Seeking a challenging position in a good research environment in the field of computer architecture and parallelization, to be able to acquire analytical and research skills, key transferable knowledge, and add value to my institution.

PUBLICATIONS

- [1] K. Metwaly, K. Elamrawi, E. Algizawy, M. Mahmoud, M. El-Basyouni, and P. Thierry, "Accelerated reverse time migration with optimized io," in *2017 Intel® HPC Developer Conference*, Denver, USA, Nov. 2017.
- [2] E. Algizawy, T. Ogawa, and A. El-Mahdy, "Real-time large-scale map matching using mobile phone data," *ACM Trans. Knowl. Discov. Data*, vol. 11, no. 4, pp. 52:1-52:38, Jul. 2017. [Online]. Available: <http://doi.acm.org/10.1145/3046945>
- [3] A. Elmahdy, E. Algizawy, T. Ogawa, H. El-Shishiny, and M. Baddar, "High resolution traffic maps generation using cellular big data," in *Proceedings of the 2015 NetMob international conference - Data for Development Challenge Senegal*, 2015.
- [4] A. El-Mahdy, H. ElShishiny, and E. Algizawy, "Smart traffic framework based on dynamic mobile clusters," in *2014 IEEE 3rd International Conference on Cloud Networking (Cloud-Net) (CLOUDNET'14)*, Luxembourg, Luxembourg, Oct. 2014.
- [5] A. E. S. Ahmed, A. K. Alsammak, and E. Algizawy, "A new approach to manage and utilize cloud computing underused resources," *International Journal of Computer Applications*, vol. 76, no. 11, pp. 29-36, Aug 2013.
- [6] E. Algizawy, A. Alsammak, and A. Ahmed, "A generic resources allocation approach for better cloud computing iaas services," in *The 2012 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'12)*, USA, Jul. 2012.

COMPUTER SKILLS

Programming Skills:

C/C++, Fortran, Java, ASP.Net programming languages
Intel compilers tools/Libraries e.g. MKL, MPI library,
vTune Amplifier, advisor, etc.
R & MySQL Database
Linux shell scripting &

Editing Suits:

Microsoft office, Open office & L^AT_EX

Operating Systems:

Red hat/Ubuntu/Fedora
Windows 2000/XP/Vista/8/10
Mac OSx

🏠 4 Ibrahim Sherif Street, Alexandria, Egypt
☎ +20106 8866421
✉ essam@feng.bu.edu.eg
✉ essam.algizawy@ejust.edu.eg
✉ essam.algizawy@brightskiesinc.com

EDUCATION

Nov 2017 - Feb 2013

- Ph.D. Egypt-Japan University for Science and Technology (E-JUST)
- A Generic Traffic Approach for Synthetization, Monitoring and Forecasting: An Application of Cellular Big-Data on Dakar, Senegal

Mar 2015 - Nov 2015

- Visiting research fellow, Kasahara/Kimura Lab - Waseda University, Japan

Feb 2011 - Oct 2012

- M. Sc., Computer Engineering Department, Faculty of engineering - Shoubra, Benha university, Egypt
- Harvesting Unused Resources for Cloud Computing

Sep 2005 - Jul 2009

- B.Sc., Computer Engineering Department, Faculty of engineering - Shoubra, Benha university, Egypt
- Grade: V. good with honor (Ranked: 1st)
- Project: Document Based Business Management, grade: Excellent

RESEARCH PROJECTS

SEP 2014 - MAY 2015

Waseda University, IBM Egypt, and E-JUST University
Orange D4D - Road-Level Vehicle Trip Route Determination Using Cellular Big Data

We consider, for the first time, utilization of mobile Call Duration Records (Senegal CDRs big data) for 'microscopic' traffic level analysis, modeling and prediction.

JAN 2011

Benha University, Faculty of engineering, Cairo
HP Cloud Computing lab proposal

Participate in preparing cloud computing lab proposal that aid our students in the implementation and host of computer application that raise their capabilities in dealing with Grid/Cloud computing techniques effectively

JUN 2010

ITIDA Research Project Proposal
Effectiveness and Cost Benefits of cloud Computing-Based for Management Information System application:

Participate in preparing ITIDA project that address the development and providing information management system as a service using cloud computing techniques.

WORK EXPERIENCE

FEB 2016 - CURRENT

Brightskies Tech. co. [Intel partner] *Senior HPC systems engineer - [team leader]*

- On-site technical support and code optimization for Intel customers e.g. Saudi Aramco
- Participate in the following code optimization technical tasks:
 - Vectorization/intrinsic, multithreading and multiprocessing using AVX/SSE, OpenMP, MPI
 - Algorithmic-based optimization e.g. PsTM in time equivalent depth manner limiting exploration areas per iteration.
 - Linear algebra based code optimization e.g. vector mathematics(VML), BLAS, LAPACK, MKL, etc.
 - Seismic-based code optimization e.g. RTM, PSTM, etc.
 - Tree-based load balancing parallel algorithms e.g. reservoir load balancing
 - Optimize the PSTM code on AVX2 and AVX512 versions targeting current and future Intel architectures and memory hierarchies
- Linux server administration & HPC infrastructure management:
 - UNIX and Linux operating systems.
 - HPC software stack & Hardware architecture.
 - Deployment of web Servers, Multi Node applications, Load Balancing & High Availability
 - OS installation including popular versions of Linux (Red Hat, CentOS, SUSE...etc).
 - Installation of parallel programming & threading libraries like MPI, and Open MP
 - Setting up high-availability and/or load balancing on different layers of the clusters in order to achieve the required performance and reliability
 - Problems troubleshooting, identification & solving.
 - Bench-marking the system performance and resolving any bottlenecks impacting the overall performance

NOV 2009 - OCT 2012

ICTP, PMU, Ministry of High Education, Giza *Technical Coordinator*

Participate in the following technical task:

- Design and Develop arabic name matching algorithm.
- Develop universities mail reviewer program.
- Portal project Business analysis Technical committee member.
- Develop Live@edu Mail ID Authentication web service for Egyptian universities portal.
- Technical committee member in tender 42/G/NCB/ICTP/2009, 60/G/NCB/ICTP/2009 and etc.
- Design/Develop required programs for evaluating the Egyptian universities statistical information
- Participate in a committee for determining the range for integration with development projects - MIS, E-Learning, Digital library ..etc with the Egyptian universities portal information.

SUMMER 2009

MIS, Benha University , Benha *Technical assistant engineer*

Design, and implement batch program for data management, develop solutions for quality management team.

DEVELOPMENT PROJECTS

NOV 2011

Benha University, Faculty of engineering, Cairo *Laboratories Control System*

Design and develop Laboratories control system. The LCS system aims to serve the faculty departments labs maintainable, and scheduling to keep them fully functional using a complete ASP.net web Solution.

JAN 2012

Benha University, Faculty of engineering, Cairo *Courses Specification and Reporting Web Site*

Design and develop course specifications web site that helps teaching staff to provide the proficiency and experience necessary for carrying out of undergrad and research purposes, based on specifications stipulated for basic and advanced level university education.

UNIVERSITY TEACHING EXPERIENCE

SEP 2017 - CURRENT

Benha University, Faculty of engineering *Lecturer*

SEP 2010 - FEB 2013

Benha University, Faculty of engineering *Lecturer assistant*

Taught the laboratory section for the last year student, and assist in coordinating maintenance efforts for programming and architecture classroom equipment and configurations. Observe students to ascertain their interests, learning styles, and maturity level.

TRAINING

OCT 2009

Education Partner Airlift - Microsoft Egypt *Live@edu & Microsoft Learning Gateway*

Enable participants to implement and develop solutions around the Microsoft Live@edu and Microsoft Learning Gateway offering with a deep technical understanding and capability in implementing Live@edu and Microsoft Learning Gateway.

DEC 2009

EMC, Smart Village, Egypt *EMC Academic Alliance program*

The training purpose is to prepare the participant to teach the Information Storage & Management course and to provide him with opportunities to publicize your Academic Alliance with EMC.

SEP 2008

Cisco academy, Faculty of engineering, Benha university *CCNA Fundamentals*

SUMMER 2007

New Horizon academic , faculty of engineering, Benha university *Introduction to Microsoft MCSE*

WORKSHOPS

SUMMER 2011

ITI, Smart Village, Egypt
*Cloud Computing Research Directions and Trends in
Europe & The Introduction of The Egyptian Cloud
Computing Research Roadmap*

2011

Faculty of Engineering, Arab Academy for Science &
Technology, Sheraton Area, Egypt
Egypt Cloud Day

LANGUAGE PROFICIENCY

Arabic Mother Tongue.
English very good speaking and writing.

INTERESTS

Reading: Historical and romantic stories.
Playing: Tennis table and chess.
Charity activities.

PERSONAL DATA

D.O.B : Jan 5, 1987
Nationality : Egyptian
Marital Status : Married
Gender : Male
Military Status : Exempt