Asst. Prof. Dr Ervin Domazet

Resumé

Education

2015-2019 **PhD,** FINKI, Skopje.

Department of Computer Engineering

2012-2014 **MS**, Boğaziçi University, Istanbul.

Department of Computer Engineering

2008-2014 BS, Boğaziçi University, Istanbul.

Department of Computer Engineering



Doctoral Thesis

Title Parallel Digital Processing of ECG Signals

Supervisors Prof.Dr Marjan Gushev

Description The main objective of the ongoing doctoral thesis is to parallelize the current ECG

Processing center with HPC techniques. It consists of three stages, Data preprocessing,

Feature Space Reduction and Feature Extraction.

MS Thesis

Title Parallelization of a Furnace Simulation Code for Multicore Machines

Supervisors Prof.Dr Can Özturan

Description The main objective of this thesis is to parallelize the sequential modelling programs of

Şişecam, using Open Multi-Processing (OpenMP) for shared-memory multi-core

architectures.

Experience

Vocational

2014- Co-Founder, Technoperia, Skopje, Macedonia.

management Efficiently managing activities on Technoperia's team and projects.

optimization Profiling and Optimization of Zegin's Java code, Skopje

Parallelization of Combined Furnace Simulation of Şişecam, Istanbul

data related PL-SQL procedures

Java Jasper Reports

Report Maintenance

mobile app Android Native development of Contact Ease Application for Cybac Ltd, Melbourne

Ionic cross platform mobile application for online shopping for IGS, Melbourne Ionic cross platform mobile application for sharing daily routes, Rotta, Istanbul

data store Installation and maintenance of Alfresco Data store for IGS, Melbourne

Web application and services for Alfresco Data store for Zegin, Melbourne

containerization Integration of Docker Containers for Online Shopping sites, IGS, Melbourne consultancy Consulting Şişecam's team for efficiently using the programs, Şişecam, Istanbul **2013-2015 Software Developer & Consultant**, Sağlık Portalı, Istanbul, Turkey. dynamic web Java Web Application by using JSF 2 Technology and MVC design pattern. Mainly concentrated on Java, Hibernate, OracleSql and Primefaces crawling Development, Maintenance and Automation of Web Crawlers. data related PL-SQL procedures for processing raw data gathered from crawlers. consultant Giving consultations to the team members. **2012-2013** Research & Developer Engineer, Sentio Sport Analytics, Istanbul, Turkey. development Development of the GUI for the end products using QT. R&D in the field of Computer Vision by using C++(VS 2010) & OpenCV on Image Stiching, R&D Background Segmentation, Multiple Object Tracking(Kalman Filter, Optical Flow). Additionally, Discrimination and Player Classification algorithms were developed. network prog. Design, Development and Maintenance of the Client(C++)-Server(Java) communication protocol between the sub-components using TCP and UDP. parallel prog. Design, Development and Maintenance of Multi-Threaded Real-Time system; Synchronization and optimizations, by using Intel Performance Primitives and CUDA. Academic **Fall 2020-now Assistant Professor at,** *Int. Balkan University,* Skopje. Introduction To Programming **Advanced Programming** Visual Programming Multimedia Web Design Software Engineering Advanced Software Engineering Spring 2019 Instructor in Database Systems, Int. Vision University, Gostivar. Fall 2018 Instructor in Software Engineering, Int. Vision University, Gostivar. Spring 2016 Instructor in Object Oriented Programming, Int. Vision University, Gostivar. Teaching Assistant in Digital Systems, Boğaziçi University, Istanbul. Spring 2010 **Training Summer 2010** Intern, Fujitsu Technology Solutions, Istanbul, Turkey. Concentrated on network programming, CISCO routers and server virtualization. **Summer 2011** Intern, Data Analytics, Skopje, Macedonia.

Languages

English Advanced

Concentrated on crawlers and dynamic web projects using Python's Werkzeug package.

Macedonian Fluent
Albanian Fluent
Turkish Native

Computer Skills

programming Java, C, C++, C#, IPP-OpenCV, Fortran 77-90, Matlab, Perl, Prolog, Python, Php, Asp.Net

databases Oracle PL-SQL, MySql, MsSql, Postgres.

parallel CUDA GPGPU, Maxeler Dataflow Programming, Open MP, MPI

network UDP/TDP distributed programming, distributed parallelism, Hadoop

cloud AWS, Azure, Alfresco Data Store, Openstack Private Clouds

WEB Spring Framework, JSF , Primefaces, Hibernate ORM

Mobile Android Native, Ionic Cross Platform Development, AngularJS

Publications

- E. Domazet, G. Merdzan, V. Cvetkoska, D. Mechkaroska, S. Serdaroglu, and B. Sucubasi, FACTA 2024 "REVOLUTIONISING THE DOCUMENT WORKFLOW USING BLOCKCHAIN IN BANKING SECTOR", in journal of Facta Universitatis, Series: Electronics and Energetics 37 (1), 107-123
 - D. Mechkaroska, E. Domazet, A. Feta, and U.R. Shikoska, "Architectural Scalability of FICC 2024 Conversational Chatbot: The Case of ChatGPT", in Future of Information and Communication Conference, 54-71.
 - AIP 2023

 D. Mechkaroska, E. Domazet, E. Kica, A. Feta and A Velkoska, "IoT and IoT blockchain market analyzes and benefits in Europe", in AIP Conference Proceedings 3063
- E. Domazet, D. Rahmani, and D. Mechkaroska, "Blockchain Empowering Web 3.0: TELFOR 2023 Decentralized Trust and Secure Transactions for the Future Internet", in Telecommunication Forum (TELFOR), 2023. IEEE.
 - D. Nuredini, D. Mechkaroska and E. Domazet, " A Secure and Effective Solution for ICICT 2023 Electronic Health Records with Hyperledger Fabric Blockchain" in 8th International Congress on Information and Communication Technology, London. (still pending)
- S. Mitrevska, E. Vrangaolvska, S. Baloska, D. Mechkaroska and E. Domazet, "Blockchain as a TELFOR 2022 Service, an overview on AWS and its BaaS" in Telecommunication Forum (TELFOR), 30th 2022 Nov 15 (pp. 1-4). IEEE.
- ICASEM 2022 A.P. Kujunciska et.al, "Transversal Skills in Applied Artificial Intelligence Curriculum Development" in IBU Journal of Technical and Natural Science, in press, 2022.
- ICASEM 2022 F.Kamberi, E. Domazet and A.Feta "Advanced Architectures Supporting the Evolution of The Metaverse Ecosystem" in IBU Journal of Technical and Natural Science, in press, 2022.
- A.Feta, E. Domazet and F.Kamveri "Software Trends Supporting the Evolution and ICASEM 2022 Democratization of The Metaverse Ecosystem" in IBU Journal of Technical and Natural Science, in press, 2022.

- ICASEM 2021 E.Redjepagikj and E. Domazet, " Requirements Elicitation of a Blockchain-based Electronic Voting Application" in IBU Journal of Technical and Natural Science, in press, 2021.
- ICASEM 2020
 G. Merdzan, E. Domazet, B. Sucubasi, B. Imeri, "Effects of Automation on Labour Markets in the Emerging Countries" in IBU Journal of Technical and Natural Science, 2020.
- IOS PRESS 2019 E. Domazet and M. Gushev, "Improving the QRS Detection for One-channel ECG Sensor" in journal of Technology and Healthcare 2019, in press, IOS Press.
 - ICT 2018 E. Domazet and M. Gushev, "Amplitude Rescaling Influence on QRS Detection" in 10th ICT Innovations 2018. Springer, Ohrid, Macedonia.
 - ICT 2018 M. Gushev and E. Domazet. "Optimizing the Impact of Resampling on QRS Detection" in 10th ICT Innovations 2018. Springer, Ohrid, Macedonia.
 - M. Gushev and E. Domazet. "Optimal DSP bandpass filtering for QRS detection" in 2018 MIPRO 2018 41st International Convention on Information and Communication Technology, Electronics and Microelectronics (MIPRO). IEEE, 2018.
 - TELFOR 2017 E. Domazet, M. Gushev, and L. Antovski, "**Design specification of an ECG mobile application**" in Telecommunication Forum (TELFOR), 2017 25th 2017 Nov 21 (pp. 1-4). IEEE.
 - BCI 2017 E. Domazet, M. Gushev, and L. Antovski, "A Time-Critical Mobile Application based on ECG Medical Monitoring" in 8th Balkan Conference in Informatics, 20-23 September 2017.
 - E. Domazet and M. Gushev, "Optimal Parallel Wavelet ECG Signal Processing" in 14th CiiT 2017 International Conference on Informatics and Information Technologies, Mavrova, Macedonia, April 2017.
 - E. Domazet and M. Gushev, "Parallelization of digital wavelet transformation of ecg MIPRO 2017 signals" in MIPRO, 2017 Proceedings of the 40th Jubilee International Convention. Opatija, Croatia, in press: IEEE, 2017.
 - E. Domazet, M. Gushev, and S. Ristov, "Optimizing high-performance CUDA DSP filter for DAAAM 2016 ECG signals" in 27th DAAAM International Symposium. in press, Mostar, Bosnia and Herzegovina: DAAAM International Vienna, 2016.
 - AiiT 2016 E. Domazet, M. Gushev, and S. Ristov, "CUDA DSP filter for ECG signals" in 6th International Conference on Applied Internet and Information Technologies, in press, Bitola, Macedonia.
 - E. Domazet, M. Gushev, and S. Ristov, "Dataflow DSP filter for ECG signals" in 13th CiiT 2016 International Conference on Informatics and Information Technologies, in press, Bitola, Macedonia, 2016.
- PARENG 2015

 E. Domazet, C. Ozturan, L. Önsel and Z. Eltutar, "Parallelization of a Glass Furnace Mathematical Model for Multi-core Systems", in Proceedings of Fourth International Conference on Parallel, Distributed, Grid and Cloud Computing for Engineering, P. Iványi, B.H.V. Topping, (Editors), Civil-Comp Press, Stirlingshire, United Kingdom, paper 1, 2015.

Professional Interest Areas

performance Deeply analyzing programs that have strict execution time constraints, and locating the

evaluation bottlenecks. Giving regular performance reports to the development team.

Optimizing time consuming parts of data intensive programs.

HPC Developing fully parallel algorithms for HPC related programs.

Personal Skills

hard-working Target-oriented hard working skills.

communicative Have better persuasive, communication skills.

presentable Can write reports and deliver oral presentations on it.