CSC2014 PARTICIPANTS

NIEDZIELA Jeremi



CERN, Geneva - Switzerland

I am a physicist from Faculty of Physics, Warsaw University of Technology. My main field of interest is analysis of residual baryon correlations. Previously, I've been also working on angular correlations of non-identified particles in proton-proton collisions. I am a member of ALICE collaboration and I conduct my study based on data from this experiment, as well as on data from theoretical models. Currently I am a doctoral student in CERN and I work on Event Display of ALICE to prepare it for next periods of data taking. Main goals of refactoring of this system are to fully separate reconstruction of events and displaying of visualization, which involves sockets to send events between different parts of the system. Moreover, new feature of bookmarking interesting events was requested and I am also responsible for implementing it.

NIEKE Christian



CERN, Geneva - Switzerland

I am currently working as a doctoral student at CERN Data Storage Services (IT-DSS) in cooperation with Technische Universität Braunschweig, and my thesis topic is: "Quantitative optimization of CERN's large storage systems based on measured user access patterns". In 2007 I graduated as Diplom-Ingenieur (BA) / B.Sc Information Technology from the University of Cooperative Education Mannheim, in cooperation with the German Aerospace Center [DLR]. I continued my studies at Technische Universität Braunschweig where I received my M.Sc. in Computer Science in 2010. I then worked until 2013 as a research assistant at Technische Universität Braunschweig, Department of Bioinformatics & Biochemistry on MetaboliteDetector, a tool for the analysis of GC/MS based metabolomics data, and a management system for experimental data. Afterwards, I worked for 7 months as a research assistant at the National Institute of Informatics (NII) in Tokyo, Japan, before coming to CERN.

NIKODEM Thomas



Physikalisches Institut Heidelberg - Germany

I am currently a PhD student in particle physics with the LHCb collaboration. For my work so far, I have contributed to a precision measurement of b hadron lifetimes which tests the Heavy Quark Expansion model of the b quark. At the moment, I am working on an angular measurement of the decay, B->K*mumu, to search for deviations from the standard model in b-s quark transitions. I am also involved in performance studies and improvements of the track reconstruction algorithms which will be used in the upgrade of the LHCb detector. The increasing data yield after the upgrade puts strict requirements on the algorithms, both in efficiency and also in timing, which are accomplished using the latest computing technology.

OTTO Adam Jedrzej



CERN, Geneva - Switzerland

I am a graduate of data communication at Military University of Technology in Warsaw in Poland. Recently I have obtained French Government Scholarship, which has given me the opportunity to undertake "Conception and Management of Complex Computer Systems" master studies, at the two most prestigious French universities — Ecole Centrale Paris and Ecole Polytechnique. After very successful year at Ecole Centrale Paris, I have received VIA scholarship and started to work as R&D Engineer/Junior Fellow at CERN. At the moment I am working, at LHCB online team, on TCP/IP based event generator which will be used to simulate and test system behaviour, performance. I am also responsible for some maintenance and administration tasks at LHCB server farm. I am familiar with: C, Python, Shell scripting, Linux, Windows systems.

PÉK János Dániel



CERN, Geneva - Switzerland

I work at IT-PES-PS, I am a "Batch boy", which means I am member of the Batch team. My current project is to discover the market of high-throughput batch systems, investigate the feature-set of the alternatives and perform different benchmarks against them. I have been developing a stress testing framework in Python and BASH. Based on the test results of the candidate software products, we'll upgrade CERN's batch farm to the chosen system accompanied with its integration with many other software in use at CERN's infrastructure.

I also cooperated in a project aiming to provide a query cache system to protect the currently used IBM LSF batch system from heavy query-loads.

I am fluent in Python, C and BASH, and I work on Linux and MacOSX. I am acquainted with most of the web- and mobile-based development techniques. I am especially interested in non-relational database management systems (MongoDB) and functional programming (Haskell).

I play the piano for ages, and I love jazz, classical music and music theory.

PEREIRA Andre



LIP-Minho, Braga - Portugal

I am a PhD Computer Science student in High Performance Computing. I am currently working on improving the efficiency of event data analysis applications on homogeneous and heterogeneous computational systems. I am addressing inefficiency issues in both code and application runtime, and exploring parallelism on CPU and accelerator devices (such as GPUs).

Recently my focus is on automatic parallelisation of event data analysis applications on heterogeneous platforms.

PISANI Flavio



CERN, Geneva - Switzerland

I am a master student in physics, with a special focus on electronics and computer science, at University of Rome "La Sapienza". Now I am working at CERN as a Technical Student in the LHCb experiment.

My current project is related to the DAQ upgrade scheduled to happen in LS2. I am working on the DAQ network and I am implementing a new transport layer for Event Building emulation software, in order to evaluate new technologies. This transport layer is implemented using zero-copy technology, in order to achieve lower latencies and minimize the CPU and memory bandwidth overhead introduced by the transfer itself. I am experienced in testing high performance network cards, developing C/C++ applications, especially networking and DAQ applications, VHDL and FPGA developing.

RABADY Dinyar



CERN, Geneva - Switzerland

I first started working at CERN as a summer student on the Level-1 trigger of the CMS experiment where I helped in the development of the Trigger's online software. I then continued working on the Trigger for my master's thesis where I developed a method to access the registers on an AMC processing module via TCP/IP. Now I am in the middle of my PhD studies, working on the upgrade of the Global Muon Trigger. For this project I am mainly developing firmware in VHDL, but I have been programming a lot in C++, Java, and Python before starting my thesis. I work using Linux, but am familiar both with Windows and Mac OSX.

RODRIGUEZ PEON Alberto



CERN, Geneva - Switzerland

I am the Service Manager of two Grid Services, VOMS and LFC. This implies being the main responsible of both, making sure they present high availability, attractiveness for the end users and up-to-date documentation. As part of my job at CERN, I also contribute the support rota for all services ran by the IT-PES-PS section. For all this, we use a DevOps approach within the Agile Infrastructure at CERN (based in virtualisation with Openstack and Puppet). Previously, I completed both my BSc and MSc in Computer Science at the University of Oviedo and was an openlab Summer Student in 2013. I have a wide knowledge of Linux and experience with Python and Java for solving real-world problems. My professional interests are software engineering, cloud computing and machine learning.

ROMERO MARIN Antonio



CERN, Geneva - Switzerland

Currently, I am leading and participating in architecture definition of each computing part of the NEXT experiment: storage, processing, analysis, monitoring and distribution system. I am in charge of the configuration, administration and maintenance a farm of computers for the data acquisition system with Scientific Linux. I am working in the setup and evaluation the performance of several distributed file systems like Guslter FS, Lustre FS and Ceph FS. Developing and testing scripts to use multicore technology and administration the analysis batch system with Torque/Maui.

SAUNDERS Dan



Bristol University - United Kingdom

I am currently working towards my Particle Physics PhD, focusing on 4-body amplitude analyses at LHCb. These are particularly interesting, as many can lead to constraints on CP violating phases. As such analyses have a large number of free parameters, they introduce many computational challenges. Further, given that 4-body decay data is 5-dimensional, I have also previously explored multivariate data visualisation techniques as part of my Master's degree. In addition to these analyses, I also develop software for analysing test beam data for the LHCb Vertex Locator (VELO) upgrade pixel detectors, focusing on event reconstruction and efficiency measurements."

SMITH Joshua Wyatt







SOSNOWSKI Adam



STANCU Stefan Nicolae



SZOSTEK Pawel



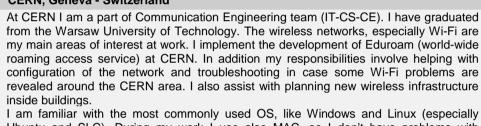
University of Cape Town - South Africa

Joshua Wyatt Smith, originally from South Africa, is currently pursuing his Master's degree in physics at the University of Cape Town. He is a member of the ATLAS collaboration where his current work revolves around high performance and high throughput parallel computing on the power efficient ARM architecture. This involves porting the ATLAS software to the required architecture as well as researching current Cortex-A series processors. For his honours thesis he looked at muon pairs created through photon processes in high energy collisions. He compared the Monte Carlo generators HERWIG, PYTHIA and LPAIR when modeling the sub-process gammagamma to two muons. He obtained his undergraduate degree in physics while playing division 1 tennis at the University of Montana, USA.

Nizhny Novgorod State Technical University - Russian Federation

I graduated from Nizhny Novgorod State Technical University n.a. R.E. Alekseev, Russia. Now my work is oriented around a creation and maintenance of small data centers. Business focus: system integration, the creation of virtual cloud -based Microsoft Hyper-V and AMD x86-64. Division of Industrial problems to parts as possible that can be performed in parallel. Creating a specific system of document management, monitoring and control. TCP-IP network. Programming languages: 1C: 8x, Object Pascal, PowerShell. OS: Windows, Linux. Lead a team of 3 employees. Research interests: A semi-empirical quantum mechanics - modeling chemical reactions. In fact, the search for "stable" intermediates phosphine interaction with oxygen. Methods: MNDO, MNDO/d, AM1.

CERN, Geneva - Switzerland



Ubuntu and SLC). During my work I use also MAC, so I don't have problems with navigation in this system. In term of programming languages I have good knowledge of Perl and JAVA.

CERN, Geneva - Switzerland

Stefan Stancu graduated the Electronics and Telecommunications Faculty at University Politehnica of Bucharest in 2001. Soon after he joined CERN as a project associate and was involved in the R&D program for designing high performance Ethernet networks for the ATLAS experiment. In 2005, upon completion of his PhD thesis at the same university, Stefan moved to University of California at Irvine and continued working for the ATLAS experiment. He played a leading role in the design, deployment and operation of the dedicated data acquisition network, a key piece of system that transported and filtered the physics data that led to the discovery of the Higgs boson. Stefan joined CERN's IT department as an openlab COFUND fellow in 2012, where he works on a Software Defined Networking project in collaboration with HP networking. Currently Stefan is a member of the engineering team of the group responsible for CERN's IP networks.

CERN, Geneva - Switzerland

I am a computer scientist working as a Fellow in the Platform Competence Center at CERN openlab, which is a CERN-Intel partnership. In my work I am focused on benchmarking, efficient computing and performace monitoring. My duties encompass advanced computing studies on various clusters of servers using different compilers, as well as managing a cluster of development machines and providing them to our colleagues at CERN and beyond. I graduated in Computer Science from Warsaw University of Technology. Previously I was employed at the University of Warsaw where I focused on machine learning techniques applied to immense sets of scholarly articles gathered in a digital library.