Rodolfo Quispe

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Education

2019-Present **Doctor of Philosophy in Computer Science Student**, *University of Campinas (UNICAMP)*, Brazil.
GPA 4/4

2017-2019 **Master of Science in Computer Science Student**, *University of Campinas (UNICAMP)*, Brazil.
GPA 4/4

2012-2016 **Bachelor in Computer and Systems Engineering**, *Universidad Nacional de San Antonio Abad del Cusco (UNSAAC)*, Perú, 2nd place of all students in class for the last 3 years.

Awards and Recognitions

- **UNICAMP:** 2017 - 2019, Brazilian National Council for Scientific and Technological Development Scholarship.
- **ACM International Collegiate Programming Contest (ICPC):** 2015, 6th in all Peru; 2014, 1st in the South of Perú; 2013, top 13% participants in the South Region of Latin America.
- **UNSAAC:** 2014, Winner of the Technology Fair UNSAAC, with a project using PIC 16F84A; 2013, Winner of the Cusco Programming Contest "Cuscontest"; 2012, Achieved 2nd in the Joint Entrance Examination.
- **Colombian Competitive Programming Network:** 2015, Winner of PI-DAY programming contest.

Languages and Technologies

- C, C++, Python, Java, HTML, PHP, CSS, C#, MATLAB, OpenCV, Scikit-Learn, Scikit-Image, TensorFlow, Keras, Pytorch, OpenCV
- Netbeans IDE, Eclipse, Visual Studio, Microsoft SQL Server, MySQL, OpenMP, Docker, CUDA, Linux, LaTeX

Relevant Courses Undertaken/Ongoing

- Machine Learning, Formal Languages, Algorithms, Databases, Networks & Teleprocessing, Software Engineering, Robotic, Concurrent & Parallel Programming,Computer Organization & Architecture, Computer Vision.

Research and Publications

PERSON RE-IDENTIFICATION.
Under supervision of Helio Pedrini (UNICAMP)

- **Rodolfo Quispe** and Hélio Pedrini *Improved Person Re-Identification Based on Saliency and Semantic Parsing with Deep Neural Network Models*, Image and Vision Computing Journal 2019 (To appear)

CROWD COUNTING.
Under supervision of Helio Pedrini (UNICAMP) and Adin Rivera (UNICAMP)

- Darwin Titto*, **Rodolfo Quispe***, Adin Rivera and Hélio Pedrini *Where are the People? A Multi-Stream Convolutional Neural Network for Crowd Counting via Density Map from Complex Images*, IEEE 26th International Conference on Systems, Signals and Image Processing, IWSSIP 2019. Osijek - Croatia

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Projects and Experience

2018 **MICROSOFT CORPORATION INC.– SOFTWARE DEVELOPMENT ENGINEER INTERN**, *Redmond-USA*.
Under supervision of Gord Lueck (U-Toronto) and Yumao Lu (UCLA)

- I worked inside BING creating new ways to engage and help users by conversational search. Used Machine Learning and Natural Language Processing methods for data analysis and question generation over huge quantities of data. My project was expected to increase revenue by 2M USD in 2018 fiscal year.

2017 **PARALLEL CENsus TRansform hISTogram (CENTRIST) USING GPUs**.

- Implemented parallel CENTRIST using CUDA, Clang and C for GPUs. Got up to 15X speed up.

2016 **TYPICAL DANCE RECOGNITION USING MACHINE LEARNING**.

- Seminal work in Recognition of images of Typical Dances from Cusco-Peru using Histogram of Oriented Gradients, Local Binary Pattern, Support Vector Machine, AdaBoost and Random Forest. Implemented with OpenCV, Scikit-learn and Scikit-image.

2015 **AUTOMATION OF INSTITUTE SYSTEMS CUSCO(ISC) UNSAAC**.

○ Implemented a software for the administration,teachers and students of the ISC. Use of Laravel framework, PHP and a MySQL database. Documented the software using UML case tools.

2015 **REPOSITORY OF THESIS AND STUDENT WORKS FOR UNSAAC**.

○ Implemented a software to store, search and discuss about thesis, projects, books and homeworks of all subjects taught in the UNSAAC. Used PHP, HTML and MySQL for the project and documented it using UML case tools.

2014 **ASSEMBLER PROJECTS WITH PIC 16F84A**.

○ Implemented a calculator and a distance sensor with a final user interface controlled by a PIC and assembler.

Positions of Responsibility and Extra-Curricular Activities

2019 **Lecturer in Machine Learning Course** at UNSAAC, witnessing participation of over 100 students.

2018 Teacher Assistantship of Algorithms and Computer Programming course at UNICAMP

2014 – 2016 **ACM Chapter Cusco Chair**

Representative of ACM as a Student Chapter, organize events to promote Computer Science and Technology in Cusco

2017 – 2019 **Problem setter in competitive programming contest** in Cusco: "Cuscontest"; Peru: "Peruvian Scholar Contest"; LATAM: "IEEE International Congress on Electronics, Electrical Engineering and Computing"

2014 – 2018 Organized Programming Contest in Cusco, witnessing participation of over 160 students per year.

2015 Organized a talk about BioInformatics, witnessing participation of over 150 students from Cusco.

2015 Participant in CLEI 2015, Conference about research and recent works in Computer Science

2014 – 2015 Organized series of talks about master's and doctoral thesis on research in Computer Science, BioInformatics and C++ workshop, witnessing participation of over 350 students from Cusco.

2013 – 2015 **Programming Training Camps**

Peruvian training Camp (2013 - 2015, topped 5 in all contest), Bolivian training Camp (2014, topped 2 in all contest)