

# JOSE ABEL TICONA LARICO

## PERSONAL DETAILS

PLACE AND DATE OF BIRTH: Arequipa, Perú - January 7, 1993  
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## EDUCATION

2017 - 2020 Master in Computer Science, at the *Federal University of the Rio Grande Do Sul (UFRGS)*, Porto Alegre - Brazil.  
Thesis: Towards Interactive Simulation of Soft, Rigid and Viscous Objects in Immersive Virtual Reality  
Advisor: Luciana Nedel. Co-Advisor: Rafael Torchelsen.

2009 - 2015 Bachelor of Software Engineering, at the *National University of San Agustin (UNSA)*, Arequipa - Perú.  
Thesis: Segmentation of blood vessels using mathematical morphology.  
Advisor: Eveling Castro.

## PROFESSIONAL EXPERIENCE

JUN 2021 - PRESENT | I'm acting as a software engineer in the area of virtual/augmented reality for the Institute of Science and Technology (SIDIA). I participate in the definition of the development of a platform to support mobile applications.  
Manaus - Brazil.

MAY 2020 - MAY 2021 | I worked as a software engineer in the Technology area. Responsible for supporting technical requirements analysis; Support the definition of architecture; Develop software according to the team's definitions and Automate software tests within Zenvia.  
Porto Alegre - Brazil.

MAR 2017 - NOV 2019 | I worked as Researcher and Developer in the project to build a sensor and control system for a robot, operated semi-autonomously for monitoring and maintenance of ducts from 4" to 10". On behalf of the UFRGS and financed by Petrobras. Here my job was to implement the robot movement simulation in virtual reality, and create a visualization to collected data.  
Porto Alegre - Brazil.

APR 2016-FEB 2017 | I worked as architect and developer at Global System & Consulting SAC. for the creation of an Educational Management and Monitoring System (SIGESMED) for the Regional Government of Moquegua - Peru, here my job was to design and implement the core of the system both on the frontend and backend side.

OCT 2014-OCT 2019 | I worked on my own startup project that consists of creating an ERP system oriented for micro-enterprises called SIE. Here I work as an architect, analyst and developer gaining a lot of experience using web technologies. Currently, We have 3 clients and eventually we provide support for failures, new features or migration to new technologies.  
Arequipa - Perú.

## SCHOLARSHIPS AND CERTIFICATES

JUN 2022	Participate in Code The Future coding challenge organized by Sidia, reaching third place on the podium. Held in Brazil.
DEC 2018	Participate in the 9th annual IEEE 3DUI Contest in the team CG-UFRGS, getting third place.
OCT 2018	Participate in the conference SIBGRAPI co-located with SBGames and SVR, held in Iguazu - Brazil.
Nov 2012	Participate in International Collegiate Programming Contest ACM 2012 organized by ACM - IBM held on 9 and 10 November 2012.

## INTERESTS

- I work in the design and implementation of Middleware, SDKs, APIs, and Architectures (Layered, Client-Server, Broker, Event-Driven, Microservices) for web/mobile platforms.
- I would like to work in the video game industry or industries that work with 3D, Virtual/Augmented reality technologies.
- I am interested in researching physically-based simulation (like fluids, solids e soft bodies) using Mathematical models, numerical methods & iterative methods.

## PUBLICATIONS

JUN 2019	Phys-Sketch: Sketching 3D Dynamic Objects in Immersive Virtual Reality. <i>Computer Graphics International Conference 36, 119-130 (presented in Canada)</i> Jose Abel Ticona, David S. V.,Rafael T.,Luciana N., Anderson M.
NOV 2018	Heat-Based Bidirectional Phase Shifting Simulation using Position-Based Dynamics. <i>Computers &amp; Graphics 76, 107-11 (presented in SIBGRAPH - Foz do Iguaçu)</i> Jose Abel Ticona, David S. V.,Rafael T.,Luciana N., Anderson M.
OCT 2018	Evaluation of Visual, Auditory and Vibro-Tactile Alerts in Supervised Interfaces. <i>SYMPOSIUM ON VIRTUAL AND AUGMENTED REALITY</i> . Jose Abel Ticona, Gabrielle A. S., Laura A. T., Vinicius S. D., David S. V., Anderson M.,Luciana N.
MAR 2018	3DAthlon: 3D Gestural Interfaces to Support a 3-Stage Contest in VR. <i>Conference: 2018 IEEE Conference on Virtual Reality and 3D User Interfaces</i> . Jose Abel Ticona, Jerônimo G. G., Henrique G. D., Juliano F., Victor O., Gabrielle S., Izadora B., Steeven V., Luciana N., Anderson M.

## SKILLS

- Excellent problem-solving, self-taught, and I like challenges.
- Optimization of algorithms, parallelization, and use of data structures to improve the performance.
- Programming languages: C/C++, Java, C#, Javascript, Kotlin, Python, Php.
- 3D graphic libraries: OpenGL, Vulkan, WebGL, ThreeJS OpenCV, OpenMP, CUDA, Shaders, GLTF.
- Design and Development of software: experience with JEE (servlet, jsp, jsf, cdi, jpa, ejb), Spring Framework, Kafka, Dockers, AWS.
- Databases: MySQL, Postgres, SQLServer, MongoDB, Redis, InfluxDB.
- Web programming: HTML5, JavaScript, Css3, Json, Websocket, AngularJS, VueJS.
- Tools: Git, MATLAB, L<sup>A</sup>T<sub>E</sub>X, UNITY, UNREAL, ANDROIDSTUDIO, R-STUDIO, BLENDER.
- Language: Spanish (Native), Portuguese (advanced), English (basic).