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Nikolay Prieto

Mechatronics Engineer

About Me Ph.D. candidate with strong knowledge in design optimization and data science. I have got work experience in project management, researcher, and, as a professor. I have excellent skills in programming (python), Machine Learning, data science, IoT, robotics, computer vision, maths, statistics, project management and physical computer modeling, good skills in personal relationships, leadership, responding flexibly and positively to changing situations, continuous learning autonomy, persistent and oriented to objectives. Nowadays, while I am finishing my Ph.D., I am looking for a job in the tech industry and/or research.

Education

2014 - current, Universidad Nacional de Colombia
Doctorate in Engineering.

2011 - 2014, Universidad Militar Nueva Granada
Master in Engineering.

2004 - 2009, Universidad de San Buenaventura
BS in Mechatronics Engineering.

Experience

June 2019 - present, *Associate Professor*, U. San Buenaventura University
Professor of undergraduate and graduate program in the mechatronics department. Lectures and projects are focused on Machine Learning, Data Science, Mechanical Design and Computer vision.

February 2019 - June 2019, *Associate Professor*, ECCI University
Professor of undergraduate students in the mechanics department. In charge of teaching the CAD and mechanical representation techniques.

June 2018 - Dec 2018, *Research Assistant*, Indiana University Purdue University-Indianapolis (IUPUI)
We performed topology optimization algorithms on the design of biomedical device. We developed an algorithm to reproduce an emulated gait environment to test ankle-foot prosthesis.

October 2018 - March 2019, *Mechanical Engineer Item Writer*, A pass Education – Remote
I was responsible for developing multiple-choice assessment items based on provided concepts in mechanical engineering.

Feb. 2009 - Sep. 2014, *Research and Development projects coordinator*, Military Industry of Colombia (INDUMIL)
Administrative and technical management of projects focused on research and technological development in the defense field. The duties involved were: Management, monitoring, researching, technological assessment, industrial property, engineering design and prototypes manufacturing, among other activities of projects related to mobile TV operated robotics, prosthetics for lower and upper limbs, command and control systems, military vehicles, etc.

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Communication Skills

2013, *Oral Presentation,* **ESSS-CAE Industry Aerospace and Defense congress**
Talk title: Determination of internal pressure, velocity and recoil in water jet cannons with AutoDYN.

Software Development Skills

Programming

- Python
- Matlab
- Shell

Computer Software

- Windows
- Linux
- LS-DYNA
- ANSYS
- Inventor
- AutoCAD
- ALTIUM Designer

Open Source and frameworks

- ROS
- Gazebo
- Keras
- Jupyter
- Scikit-Learn
- Bokeh
- OpenCV
- Pandas
- Seaborn
- MongoDB
- Matplotlib
- Scipy
- LaTeX
- Opensim
- Octave
- Gmsh
- G-code

Awards

2015, *Postgraduate Scholarship,* **Universidad Nacional de Colombia**
Best GPA in the PhD programme.

2014, *Postgraduate Scholarship,* **COLCIENCIAS**
Grantee for all the PhD academic programme.

2011, *Postgraduate Scholarship,* **Military Industry of Colombia**
Masters Scholarship.

Languages.

- Spanish (Mother Tongue)
- English (B2 level TOEFL certified)

Interests

Professional

Education, Research, Programming, Biomechanics, FEA, Computer Science, 3D printing.

Personal

Volleyball, Cyclist, cooking, travelling, running.