Boris Isaac Peñaloza Rojas

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Education

March 2021 | Doctor of Philosophy in Electrical & Computer Eng. GPA: 3.723

Laboratory of Perceptual and Cognitive Dynamics. Department of Electrical and Computer Engineering.
University of Denver, Denver, Colorado.

2012 | Master of Science in Electrical Power Engineering

Department of Electrical Engineering.
RWTH Aachen University, Germany.

2007 | Bachelor of Science in Electrical and Electronic Engineering

Department of Electrical Engineering
Universidad Tecnológica de Panamá, Republic of Panama.

Work Experience (Research)

2014-Present | PhD candidate

University of Denver, Denver, Colorado | Department of Electrical & Computer Engineering.
Work in the Laboratory of Perceptual and Cognitive Dynamics. The long-term aim of my research is to understand how the brain learns in dynamic environments. My research topic is *mechanisms of motion perception in the primate visual system.*

2018 present| Teacher Assistant

University of Denver | Department of Electrical Engineering.
Design and implementation of practical laboratories in Deep Neural Networks as well as teaching the fundamental concepts of machine learning and neural networks.

2012-2014 | Research Scientist

Universidad Tecnológica de Panamá, Republic of Panama | Center for Electrical, Mechanical and Industrial Research and Innovation.
Evaluated the technical capacity of the Panamanian power system for the integration of renewable energies. The research project was funded by the Panamanian government.

2011-2012 | Research Internship

Fraunhofer Institute, Kassel, Germany | Institute for Wind Energy and Energy System Technologies.
Investigated the capacity of wind farms to supply auxiliary services to a medium voltage grid located in a small town in Kassel, Germany. The outcome of this work was a master thesis. The results were presented in the EWEA conference 2012, Copenhagen, Denmark.

Work Experience (Engineering)

2011 | Industrial Internship

Infineon Technologies, Warstein, Germany| Production and Operation.
Designed and implemented the safety system for a test module of IGBTs (Insulated Gate Bipolar Transistor). This was accomplished in a 7-months internship.

2007-2009| Electrical Designer

Ingeniería Atlántico S.A. | Electrical Division. Panama city, Republic of Panama
Engineered and budgeted the power system of different projects. My biggest design was a 52 story building located in Panama City.
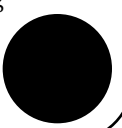
Student Scholarships and Awards

2016 NSF-sponsored ASSIST Travel Grant to attend the Engineering Early-Faculty Career Development Symposium at the HENAAC conference, California, USA.

2014 Full-scholarship granted by the Indian government to attend an international technical workshop in Solar Energy generation organized by Central Institute for Rural Electrification, Hyderabad, India.

2012 Second best Master Thesis presentation at the XIV National Congress of Science and Technology. Asociación Panameña para el Avance de la Ciencia APANAC, Panama City.

2009 Full-scholarship awarded by the Panamanian government to pursue Master studies in the RWTH Aachen University in Germany.

Presentations at scientific and professional conferences

2019 *Adaptive center-surround mechanisms in non-retinotopic processes.* Talk presented in the annual meeting of the Vision Science Society (VSS), May 22.

2012 *Local Voltage Control and Reactive Power Provision.* XIV National Congress of Science and Technology. Asociación Panameña para el Avance de la Ciencia APANAC, Panama City.

Publications

2019 Penaloza, B., Ögmen, H., Herzog, M. H. (2019). Non-retinotopic Adaptive Center-Surround Modulation in Motion Processing. *Vision Research* (in press Ms. No.: VR-19-295).

2020 Penaloza, B., Ögmen, H., Herzog, M. H. (2020). A general neural model for Adaptive Center-Surround mechanisms in the brain. (2020, in review)

Computer Skills

Vision experiment programming with CRS VSG systems, Matlab/Simulink programming (Advance), Python [Pandas, Matplotlib, scikit-learn, Scipy, Seaborn, TensorFlow] (Advance), Julia (Advance), R language (Proficient), C++ (Proficient), JavaScript (Basic), C# (Basic), Labview programming (Basic), SAS (Basic), Microsoft Office (Excel Macros).

Languages

Spanish (Native language), English (fluent, TOEFL ibt 103/120), German (fluent), Portuguese (conversational)

Activities

Member of the Vision Science Society, 2018.
Founder member of the DU chapter of the Society of Hispanic Professional Engineers (SHPE), 2019.

References

Dr. Mehmet N. Ağaoğlu   Dr. Haluk Ogmen
Visual Experience Engineer at Apple   Senior Associate Dean and Professor at the University of Denver
Email: mnagaoglu@gmail.com   Email: haluk.ogmen@du.edu