

Practice Areas

- Intellectual Property

• Education

- Louisiana Tech University, M.S. Electrical Engineering (2011)
- Louisiana Tech University, B.S. Electrical Engineering (2006)
- Louisiana Tech University, B. S. Computer Science (2006)

Fernando Puno

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Practice Areas and Industries Served

Fernando Puno assists in the domestic and foreign prosecution of patents pertaining to computer software, computer hardware, datacenter technologies, network hardware, network device software, network protocol technologies, embedded devices, computer security technologies, social network technologies, financial and business management applications, Internet of Things (IoT) systems, oilfield technologies, health and wellness devices, mobile computing devices, encryption, user interfaces, and consumer electronics.

Experience

Mr. Puno has over three years of experience in the rapid prototyping and systems integration of robotics and ultra-wideband radar, encompassing contributions to GUI design, circuits drafting, data mining and machine learning algorithms development, low-level driver implementations, as well as multi-sensor hardware integration and data processing. He also retains R&D experience in the mechatronics, embedded firmware, motor control, and communications aspects pursuant to unmanned/manned aerial vehicles; and has been involved in the assembly, maintenance, and testing of down-hole wireline tools for the petroleum services industry.

For his thesis, Mr. Puno focused on the development of a sub-nanosecond impulse radar system to detect and classify buried utilities and conduits ahead of an excavating backhoe bucket. The work served to provide near real-time feedback to backhoe operators during excavations, to deter collisions and damages to subsurface infrastructure that may or may not be mapped.

Mr. Puno has also delved into the realm of computational neuroscience, partaking in the study of fused artificial-biological neural network components to mimic dynamics of the hippocampal CA3 subfield, purposed to supplement brain function replacement therapies through the bypass or substitution of damaged tissues incurred by neurological disorders or trauma. The proposed paradigm functioned on the premise of previous findings that suggested computation, learning, memory, and biological relevancy can all be enhanced as a result of integrating neuronal characteristics

Fernando Puno, *Continued*

within the activation functions of neural networks.

Languages

- Spanish (conversational)
- Brazilian (conversational)

