



Dylan J. Gormley
Senior Principal Scientist
Signal Processing & Wireless Communications

Dylan J. Gormley began his career in 2007 as a Signal Collector & Analyst for the U.S. Army's Military Intelligence Corps. During this time, he supported the international Global War on Terrorism military campaign by analyzing the radio frequency spectrum to detect, identify, acquire, and decipher target wireless communications. Analysis, decryption, classification, reporting, and exploitation of foreign signal intelligence was used to provide a strategic and tactical advantage for troops.

After an honorable discharge, Mr. Gormley completed his Bachelor of Science in Computer Engineering (BSCE) with a focus on Communications Engineering at the University of Maryland, Baltimore County. During this time, he worked as an intern for NASA Goddard Space Flight Center's Instrument Electronics Development Branch. He developed digital signal processing systems using field-programmable gate array (FPGA) logic, embedded microprocessors, software, and digital design for remote sensing research. The development focused on using classical and statistical signal processing techniques for detection, as well as analysis of science instruments results.

After completing his BSCE, Mr. Gormley accepted a position at NASA Glenn Research Center's (GRC) Data & System Branch. He designed data acquisition devices in aeronautics and space facilities during this time. Development focused on hardware and software for steady-state and dynamic data systems. Other duties included integrating acquisition and analysis systems into the test environment.

Mr. Gormley then went on to join NASA GRC's Cognitive Signal Processing Branch. During this time, he researched and developed signal processing methods and cognitive approaches for NASA's space communication systems. Focus areas included CubeSats, FPGAs, statistics, artificial intelligence, software-defined radio, cognitive radio, quantum communications, and waveform development.

Additionally, Mr. Gormley completed a Master of Science in Electrical Engineering (MSEE) focusing on Communications Engineering. His thesis investigated a low-memory spectral-correlation analyzer for digital QAM-SRRC waveforms. Further publications cover topics such as spectrum-sensing for CubeSat radios, the development of a multi-agent cognitive networking system for the lunar environment, and a hybrid technique to increase the throughput of the streaming spectral correlation analyzer.

Today, Mr. Gormley is a Senior Principal Scientist of Signal Processing & Wireless Communications for AiRANACULUS. Additionally, he is attending Case Western Reserve University, earning a Ph.D. in Systems & Control Engineering with a focus on Signal Processing.