

# Communications Systems Engineer

## **AMERGINT Technologies: We are the Link.**

The space industry is booming and at AMERGINT Technologies, we are the link. AMERGINT builds transformational hardware and software solutions that support critical programs around the globe and in space. Since 2008, AMERGINT has delivered more than 2,500 applications, services/microservices, and cloud-based solutions that support mission-critical communication networks. From human spaceflight to satellite test solutions, AMERGINT is a trusted partner for commercial, civil, and government customers.

To continue to support our growing business, AMERGINT is looking for new team members who embody our core values: Do What's Right, Unleash Intellectual Capital, Deliver Value, and Keep it Lean.

## **The Role**

AMERGINT Technologies is seeking to hire a communications systems engineer. This position entails the design and implementation of modems and related algorithms, in a software radio environment. In this role, the engineer will participate in distilling waveform descriptions into working transmitters and receivers.

This position will be located in Colorado Springs, Colorado.

## **Qualifications**

Candidate will be expected to participate with senior staff engineers in the design of modulators and demodulators for the following waveforms: BPSK, QPSK, M-PSK, M-QAM, M-ary FSK, and variations on continuous phase modulation (CPM) including CPFSK, SOQPSK, MSK, and GMSK.

Candidate should be familiar with modern communication systems, including digital communications, source and channel coding, detection, equalization, timing and carrier recovery, and common forms of feedforward estimation.

Candidate should be familiar with modern forms of channel coding, including block codes, LDPC, Turbo coding, convolutional codes, and related decoding (e.g. Viterbi Algorithm).

Candidate must be familiar with digital signal processing (DSP) for things such as filter design and link-level simulation.

Candidate should be familiar with C/C++ programming with a willingness to become proficient if hired.

Candidate should be familiar with scripting languages (e.g. Python) with a willingness to become proficient if hired. Familiarity with Python, including the MATLAB-like features of Python is a plus.

Candidate should be familiar with MATLAB.

Candidate must have a master's degree in electrical engineering (or equivalent), with an emphasis in communications systems and DSP.

Ideal candidate would have 2-5 years of work experience post master's degree. Fresh-out Ph.D. graduates would also be considered.

All candidates must be U.S. citizens with the ability to obtain a security clearance.

## What We Offer

- Flexible work arrangements
- Generous vacation policy
- Recognition and rewards
- Paid company holidays, sick time, and maternity/paternity leave
- Company paid medical and dental insurance
- Employer contributions to 401k
- Health reimbursement account (HRA)
- Company funded health savings account (HSA)
- Short- and long-term disability
- Life insurance, AD&D, and accident insurance
- Employee assistance program (EAP)
- Stipends for cell phone and home internet
- Tuition/professional development assistance
- Employee discounts from company partners
- Onsite gym
- Annual bonus eligibility (based on company performance)

## Working at AMERGINT

AMERGINT's headquarters is located in northern Colorado Springs, CO. We are driven by challenge. We hire problem-solvers, then trust and empower them to take ownership, lead decision-making, and differentiate. We believe in giving our people space to thrive. We offer challenging work with opportunities for independence and growth, a stocked kitchen, espresso machines, flexible work arrangements, company-sponsored events, community volunteer events, onsite games/break activities, business casual attire, onsite gym, and local trails for hiking and biking. Our offices are also dog friendly, and we encourage our people to bring in their furry friends.