

# Principal DSP Engineer

U.S. Citizenship Required

Charon Technologies, LLC specializes in designing and building hardware and software to meet our customers' next requirement. We focus on offering devices that can be fielded immediately to meet the mission needs that lie directly ahead. Size, weight, power, and packaging are of paramount importance in everything we design and build. Our expertise allows us to rapidly provide these solutions in specialized electronic/mechanical design, embedded & application-level software, reverse engineering & protocol analysis, and RF signals exploitation and communications systems.

**We are seeking a Principal DSP Engineer** to work on the development of our wireless product line. This role demands a deep understanding of both theoretical and practical aspects of designing physical and baseband layer solutions; including algorithms, their implementation on DSP platforms and the inter-working with protocol layer and analog / RF sub-systems. An ideal candidate will have demonstrable experience designing such solutions in a commercial environment with aggressive time-scales.

This role requires the ability to effectively collaborate with a cross functional design team. Candidates must possess solid interpersonal as well as excellent oral and written communication skills.

## **Ideal Candidates will be proficient with:**

- Communications Systems algorithms and their design including filters, signal modulation/demodulation, channel equalization/channel estimation, coding (FEC), RF signal acquisition, RF frequency control (AFC), RF gain control (AGC)
- Baseband signal processing and task scheduling
- Understanding of mixed-signal requirements (quantization bits, SFDR), power consumption)
- Experience designing solutions to overcome imperfections in RF/analog and mixed signal path
- DSP peripheral programming and control
- Interpreting and implementing wireless standards such as 3GPP (LTE, WCDMA, GSM), IEEE 802.11 (WIFI) and IEEE 802.15 (UWB, Zigbee)
- C/C++ and MATLAB
- TI Code Composer Studio or similar DSP IDE
- Fixed-point DSP design

## **Preferred skills will include:**

- System architecture design and the partitioning of functionality between GPP, DSP and
- Implementing DSP algorithms in s
- Signal processing board design
- Embedded software development



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## **Qualifications**

- 10 years+ experience designing DSP/ solutions
- MS Electrical Engineering or similar field

## **We offer a unique environment where our employees enjoy:**

- Generous salary, holidays, vacation and sick leave
- Fully-paid employee health and dental plans and life insurance
- 401k plan w/company match that vests immediately
- Tuition/educational assistance program
- Convenient location in Herndon - bike or walk to work (showers in the facility)
- Private or semi-private window offices with comfortable, contemporary furnishings
- Casual and employee friendly work environment with flexible schedule
- Free snacks, coffee, and other beverages
- Regular free lunches and social events

We are proud to be an Equal Opportunity Employer and do not discriminate on the basis of race, religion, gender, national origin, color, age, military service eligibility or veteran status, disability, sexual orientation, gender identity, marital status or any other protected class. We encourage and support workplace diversity.

**Qualified candidates may submit resumes to [hr@charontech.com](mailto:hr@charontech.com) in Microsoft Word or Adobe PDF format. Charon Technologies, LLC is an Equal Opportunity Employer M/F/D/V.**

**No third parties, no agencies, no subcontractors need apply.**

