# Join us !

**CEVA** DSP est leader mondial des cœurs de propriété intellectuelle (IP) de traitement de signal et de connectivité sans fil. Les IPs CEVA couvrent des domaines aussi variés que les technologies de vision, de communication (LTE, 5G), de connectivité sans fil (WiFi, Bluetooth) et de traitement audio.
**RivieraWaves, filiale sophipolitaine de CEVA depuis 2014,** est aujourd'hui une référence sur le marché des propriétés intellectuelles WiFi et Bluetooth. Ses IPs sont utilisées dans une multitude de produits : téléphonie mobile, matériel médical, sport, divertissement, systèmes industriels et autres capteurs sans fil. **RivieraWaves** fournit à des compagnies de semi-conducteurs le logiciel, la radio et les blocs digitaux en vue de leur intégration dans des ASICs.

> **CEVA** *DSP is the leading licensor of signal processing Intellectual Property for a smarter, connected world. Ceva's IPs cover a versatile range of end markets, including vision technologies, mobile communication (LTE, 5G), wireless connectivity (WIFI, Bluetooth) and audio processing.*
> **RivieraWaves**, *a French Subsidiary of CEVA since 2014, is now a reference on the WIFI and Bluetooth IP markets. Its IPs are used in a wide range of products: mobile phones, medical devices, sports, entertainment, industrial systems, and wireless sensors amongst others.* **RivieraWaves** *provides to semiconductor companies the software, radio and digital blocs for integration into ASIC.*

## Sujet de stage / Internship subject

### Crypto Engine Development

Voir au verso pour le descriptif / *See at the back for description*

## Why to join us?

- ☺ Technologie de pointe, projets à haute valeur technique
- ☺ Ambiance sympa dans un environnement international
- ☺ Conditions de travail stimulantes qui vous permettront d'être impliqué dans des tâches et sur des technologies variées
  - ☺ *Exciting cutting edge technology, high technical value projects*
  - ☺ *Friendly atmosphere in an international environment*
  - ☺ *Stimulating working conditions which will enable you to be involved in various tasks using different technologies*

## When ?

Stage 6 mois, démarrant de préférence au 1er trim. 2020 / *6-months internship, preferred start date in Q1-20*

## Where are we based?


Greenside Village
400 Avenue Roumanille
**Sophia-Antipolis**

Find us on the web:
http://ceva-dsp.com

Contact : rw-hr@ceva-dsp.com

# Crypto Engine Development

The internship will take place in CEVA-**RivieraWaves'** Digital Design team, working closely with other teams, such as hardware designers, software development team, who are developing baseband IPs for wireless standards such as latest generation of Wi-Fi and Bluetooth protocols.

The **RivieraWaves** Wi-Fi 802.11b/g/n/ac/ax IPs are constituted of several SW and HW pieces which are continuously evolving and for which a good level of quality has to be ensured. Being able to easily and quickly detect regressions during development steps and to get a clear status about the capacities of our WLAN IPs has become a very important challenge.

The purpose of this internship is to participate on a crypto engine improvement for WiFi. The goal is to add new encryption algorithms on an existing hardware accelerator used in our WiFi system. The relevant encryption algorithm are RSA, ECC, and maybe others.

The mission is split in several steps:

- Learn RSA & ECC encryption
- Specify the module and its internal algorithm
- Implement the specified algorithm in Verilog
- Verify the module using Cadence Simulator
- Integrate it into a WiFi platform
- Validate the complete system on FPGA
- Support to the Software team

**Student profile**:

- Bac +5, last year of Engineering school
- Familiar with VHDL/Verilog
- Experience on RTL simulation and FPGA design
- Knowledge on encryption and security is a plus.
- Autonomous, communicative, with strong team spirit , relational and organizations skills

## Join us !

### Pour postuler / How to apply?

Envoyez votre CV avec le titre du stage souhaité à / *Please send your cv with desired internship title :*

rw-hr@ceva-dsp.com