

# **ESPA** Data Science Research (NANDS2510)

### Apply here

#### Start date February 2022

# Duration

#### 6 months

#### Languages

Good spoken and written English levels are required (B2 onwards)

#### Location

#### Newcastle upon Tyne

Located in the Northeast of England you can choose from a wealth of things to do in this friendly city and discover the unexpected with centuries-old history and heritage, breath taking architecture and impressive innovation. Undeniably, Newcastle is the go-to destination for roaring nightlife, culture, and events all year round - from showstopping theatre, comedy and live music that sits alongside the clubs, cocktail bars, and independent breweries. If you love the outdoors, then further North, you will find beautiful, rugged coastline and the Northumberland National Park.

#### Are you eligible?

Are you a registered student? Or Are you eligible to participate in the Erasmus+ programme?

#### Benefits

See website for details of all ESPA benefits. For all internships over 6 months, additional benefits will be paid. Details available at interview.

# Role

This is a great opportunity for an enthusiastic data scientist/programmer to gain practical experience in software development working for this exciting and innovative biotech/nanotechnology start-up, that uses DNA nanotechnology to combine the predictable properties of DNA with their ability to identify specific sequences. Mentored throughout, in a nurturing and dynamic team environment, you will assist in the research, evaluation and creation of nanorobots that can be dropped into a patient's blood sample to diagnose the types and stages of the world's deadliest diseases. If you want to contribute to creating a positive impact across large issues in human health, then apply today for this unique addition to your work experience, a chance to work in a truly multidisciplinary environment, and guaranteed first class learning.

#### Tasks

- Research, build and test software applications that help design DNA nanorobots
- Assist the research team in the evaluation and analysis of data from experiments and computer simulations
- Contribute and participate in technical discussions
- Track and communicate test results
- Functional, performance and stress testing of the product
- Continual improvements to the procedures and test methods

### **Desired Skills**

#### Essential:

- Background in data science, computer science or a related discipline
- Coding experience in Python
- Team player
- Good problem solver
- Effective communicator

#### Desirable:

- Experience using key Python packages for data science (Pandas, NumPy, Matplotlib, etc.)
- Some experience with R
- Familiar with the agile programming methodology

## **The Host Company**

The host company is a biotech/nanotechnology start-up founded in 2018 to enable clinicians to conduct simpler, less invasive, faster and cheaper liquid biopsies for cancer diagnosis and monitoring at the point-of-care. Their cutting-edge approach is based on nanorobot devices that are added to a blood sample to capture ctDNA and can distinguish tiny genetic mutations originating from cancer cells that leave trace biomarkers in a patients' blood. Since acquiring investment earlier this year, the company has attracted world-class scientists to join its laboratories and is accelerating development of its diagnostic platform.