MEDIC FOUNDATION

APPLICATION INSTRUCTIONS:

Dear Applicant,

Thank you for your interest in joining MEDIC Foundation. Team description and recommended requirements can be found on the next page. For your final application submission, please attach your resume and cover letter to this package and follow these steps:

- Email the package to **contact.teammedic@gmail.com**
- Enter the subject line as **CREPE Algorithm/Web Developer - [Applicant Name]**

Medical Engineering Students Designing Innovations for a Cause

CREPE Team Description

While the drivers and development of cancer are different across cases, common therapy options remain to be one of the mainstream approaches, showing varying effectiveness across patients. Biological patterns within cancer patients of each type may define subtypes, directing future studies in targeted medicines and therapies to achieve better treatment outcomes in patients. Along with genomic data, pathology images give great insight into patients' tumor development characteristics. MEDIC has partnered with the AIM Lab at the School of Biomedical Engineering to develop a software pipeline that works with pathological image (from TCGA – The Cancer Genome Atlas) representations and access from different types of cancer, which support future analysis of the images to discover underlying patterns.

Algorithm/Web Developer Description

- 5-10 hour commitment (medium time commitment)
- Actively participate in research team meetings alongside other mentors and team leads
- Contribute to developing image representation and access pipeline (tasks include designing algorithms for image processing in early stages and developing a search engine in later stages)
- Complete tasks assigned to you over the week and check in with the team leads when required
- Be willing to learn and help. We need dedicated individuals willing to help us navigate the project together

Recommended Skills/Requirements

An ideal candidate is a motivated and dedicated individual who is willing to grow with our group, learn new skills, and help create a project from the ground up. Qualifications include:

- Proficiency in Python or a similar language
- Experience in web/search-engine development
- Familiarity with version control practices (e.g. GitHub)
- Ability to efficiently understand unfamiliar code
- Understanding of algorithm efficiency
- Experience in working with big data and/or image representation is an asset