phenoCHIP is a start-up biotech and life sciences company located in Blacksburg. We are successfully moving innovative technology developed at Virginia Tech to the commercial market. Our mission: Develop microfluidic chips and platforms with unique cell separation abilities. This new technology will allow researchers access to new cells, information to combat diseases, and drive innovation. We are conducting a search for a software/systems engineer for a summer internship or contract position. This job may grow to include future employment upon graduation, part-time employment during the semester and/or sponsorship in graduate level studies.

The main duties will consist of designing, developing, testing and maintaining software modules for use in custom instruments. Candidate should be able to learn and adapt quickly, work well in a team environment, and have a multidisciplinary background. Experience in the development of graphical user interfaces (GUI) as well as lower-level command and control software is strongly encouraged. Candidates without degrees but having experience through projects involving Arduino, Ras-Pi, multi-languages, and other microcontrollers are strongly encouraged to apply.

**Required:**
- BS Mechanical Engineering, Computer Engineering, Computer Science, Robotics
- Significant experience within these fields shown by contribution/development/personal projects (i.e. code work adapted, highly rated, or significant tech in for open-source)
- Minimum of 0-2 years of relevant experience
- Linux, Python, C/C++ programming experience, (proficiency in any or all significant plus)
- Strong mathematical background, able to write and place algorithms appropriately
- Must possess strong problem solving skills
- Effective verbal and written communication skills

**Desired experience in the following areas:**
- Experience with Linux and development of embedded systems software/operating systems
- Arduino, PCB layout and quoting a strong positive
- Parallel programming (e.g. pthreads)
- Driver software development
- Hardware/software co-design in an FPGA environment
- Digital Signal Processing
- Common networking protocols (e.g. TCP/UDP)
- LabVIEW programming environment

**Additional Plus Factors:**
- COMSOL
- Autodesk/AutoCAD or Solidworks Experience