

Seeking FDA Research Fellow – Computer Science Engineer
For Candidates with Bachelor's Degree in Computer Science or Biomedical Signal Processing

Seeking a talented computer science engineer to work at the U.S. Food and Drug Administration (FDA) on an interdisciplinary team studying new electrocardiographic (ECG) device algorithms to predict which drugs cause abnormal heart rhythms and sudden death. The position is available immediately and is located at FDA headquarters at White Oak in Silver Spring, MD. **Please apply by July 10, 2013 (see below).**

Project description

FDA requires new drugs to undergo special clinical studies to assess whether drugs prolong the QT interval on the ECG, a marker of potential drug-induced risk for the abnormal heart rhythm Torsade de Pointes. Digital ECGs are submitted and stored in the FDA digital ECG Warehouse, which contains more than five million ECGs. FDA is studying new ECG methods to better determine what kind of drug-induced QT prolongation is associated with the abnormal heart rhythm Torsade. The candidate will be responsible for developing and maintaining software tools for ECG analysis, managing data, and writing and maintaining software documentation. The candidate will work closely with more senior scientists on research analyses.

Desired Candidate Background/Skills:

The ideal candidate will have a Bachelor's degree in computer science or biomedical signal processing with proficiency in:

- C/C++ programming and modern C++ programming techniques such as metaprogramming and the BOOST library,
- MATLAB/Octave programming,
- Tools for graphical user interface development such as Qt framework, and
- Numerical processing languages such as Python or statistical programming languages such as R or SAS.

Previous specific experience in the following is not required but will be a plus:

- electrocardiographic analysis,
- parallel programming frameworks such as OpenMP or CUDA, and
- software documentation tools such as Doxygen.

How to apply:

The candidate would be hired as an FDA ORISE fellow (<http://orise.orau.gov/science-education/internships-scholarships-fellowships/>) working with the Dr. David Strauss' Research Group. The candidate must have received his/her most recent degree within 5 years when starting the position (requirement for ORISE fellows). Serious applicants meeting the above criteria should send a cover letter describing background/skills/interests and a resume/CV to Dr. Strauss c/o Krystal Lansdowne (Krystal.Lansdowne@fda.hhs.gov). Call 301-796-0123 with questions about submitting.

Please apply by July 10, 2013