Science: An Explosion Of Bioinformatics Careers

Programming

Additional critical skills are required for big data careers in industry, such as text mining, ontology, data integration, machine learning, and information architecture. A superior "quantitative ability," as Gentleman calls it, which covers a range of statistical capabilities, is a must, as are overarching computing skills. These include core programming abilities, such as coding in C++ or Java, or scripting in PERL or Python, says Van Criekinge. It is vital to be able to navigate operating systems like UNIX and Linux as well as have knowledge of common tools such as Hadoop and NoSQL databases, adds Mohan. Experience in data visualization and building effective user interfaces, as well as familiarity with hardware, buttresses your marketability.

Perl in Bioinformatics

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Outline

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Web Scraping in Perl

LWP

The libwww-perl collection is a set of Perl modules which provides a simple and consistent application programming interface (API) to the World-Wide Web.
https://metacpan.org/pod/LWP

Example: lwp.pl

Files

- pubmedids.txt: A list of pubmed ids
- lwp.pl: Get publication titles of these ids from PubMed.

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1 Perl Modules
- Usage of Perl Modules
- Management of Perl Modules
- Development of Perl Modules
- Submit your modules to CPAN

2 SNP Annotation
- A Perl Script for SNP Annotation
- SNPAnno module

3 Circos

4 BioPerl

Searching

www.CPAN.org

Installation

- cpan command: Linux, Mac OS and Windows(Strawberry)
- perl -MCPAN -e shell
- cpanm
- from source

- ppm: ActivePerl

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Development

see PUBMED.pm and run.pl

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Why?

- Easy the installation of your module
- Share your work with the community
- Increase your importance in the community
- Get response form the community to improve your module

How?

http://www.cpan.org/modules/04pause.html

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