Recognition of Polyadenylation Sites from Genomic Arabidopsis Sequences

Chuan Hock KOH
Limsoon WONG

Human Genome Project

- Completed in 2003
- Whats next?
  - Genomes to Life (GTL) Project
    - Understanding the detail mechanism of the cell
  - ENCODE Project
    - Annotating the whole Genome

Research Project

- Phase 1
  - Develop a computational method to analyze (annotate) DNA sequences

- Phase 2
  - Make this method easy to use, especially for biologists with no or little computer expertise

Phase 1

- Develop a 4 step methodology
  1. Feature Generation
  2. Feature Selection
  3. Feature Integration
  4. Cascade Classification
- 18th International Conference on Genome Informatics

1. Feature Generation
   - Thickness of Eyebrows, Hair Length, Hair Color, Jaw Line, Eye Color etc
1. Feature Selection
   - Reject Hair Length and Hair Color
1. Feature Integration
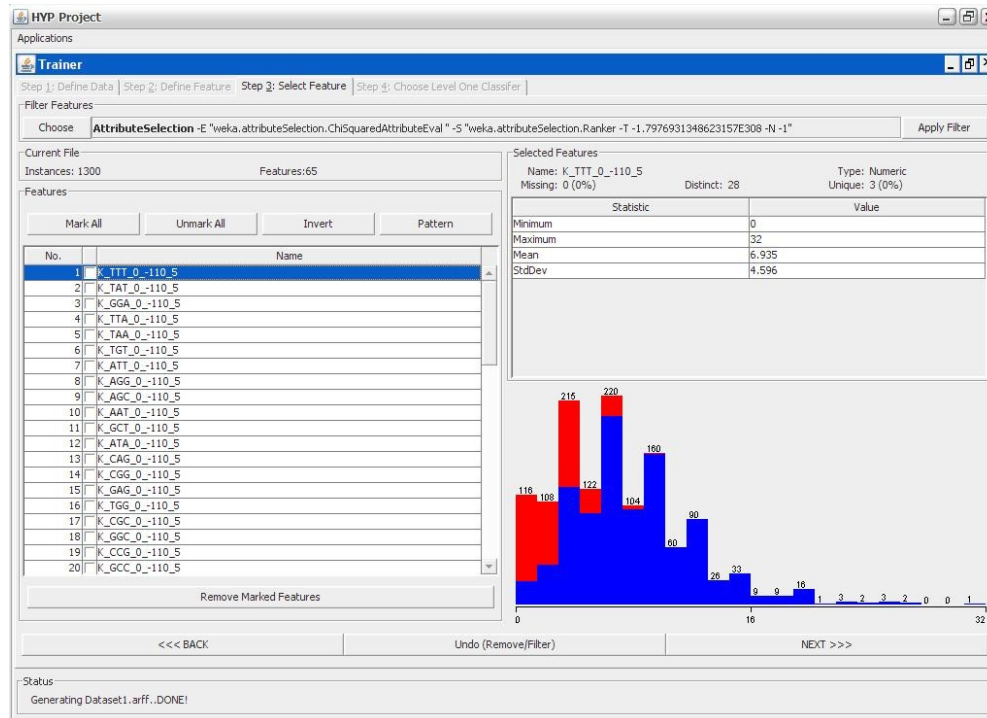   - Use all selected features to judge

1. Cascade Classifier
   • Looking at its surroundings

Phase 2

- To enable the Method to be deployed with ease
  - Developed a software

Conclusion

- Personal Genome Project
    - Individual genome for < USD 1000
- Develop more efficient ways to store, retrieve and 'crunch' data