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| Florin Chelaru |  |  206-419-3945  [](http://cs.umd.edu/~florinc) [www.mit.edu/~florinc](http://www.mit.edu/~florinc) [](mailto:florin.chelaru@gmail.com) [florin.chelaru@gmail.com](mailto:florin.chelaru@gmail.com)  [florinchelaru](http://www.linkedin.com/in/florinchelaru/) |

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| Education | University of Maryland, College Park  Doctor of Philosophy, Computer Science  Cumulative GPA: 3.89/4.0  Advisor: Dr. Héctor Corrada Bravo  Dissertation: Epiviz: interactive visual analytics software for genomics  Relevant coursework: Machine Learning (H. C. Bravo); Information Visualization (B. Shneiderman); Neural Modeling (J. Reggia); Computational Linguistics (K. H. Seitz); Computational Genomics (C. Kingsford); Functional Genomics (H. C. Bravo); Computer Vision (Y. Aloimonos). | Jan 2011  –  May 2015 |
|  | University Al. I. Cuza, Iași, Romania  Bachelor of Science*,* Computer Science  Cumulative GPA: 9.45/10.0  Class Rank: 8 of 176  Advisor: Dr. Liviu Ciortuz  Bachelor’s dissertation: [Artificial Intelligence in Computer Go](http://www.cs.umd.edu/%7Eflorinc/files/2008_06_11_BSc_Thesis.pdf) [](http://www.cs.umd.edu/~florinc/files/2008_06_11_BSc_Thesis.pdf)  Relevant coursework: Machine Learning; Bioinformatics; Neural Modeling; Evolutionary Algorithms; Artificial Intelligence; Graph Theory; Algorithm Design; Probabilities and Statistics; Calculability, Decidability and Complexity; Cryptography; Antivirus Technologies; Software Engineering and Design Patterns; C/C++; C# and .NET Framework; Java; Relational Databases and SQL. | Sep 2004  –  Jun 2008 |
| Experience | MIT Computer Science and Artificial Intelligence Laboratory  *Postdoctoral Associate* | August 2015  –  present |
|  | University of Maryland Center for Bioinformatics and Computational Biology  Graduate Research Assistant  Designed and developed software to aid in the analysis and exploration of *Big Data*, in particular high throughput sequencing – using *Machine Learning* and *Visualization* to comprehend relationships and correlations between epigenetic mechanisms and gene regulation. | Jan 2011  –  Jun 2015 |
|  | Rocket Fuel Inc., Artificial Intelligence Team  Graduate Internship  Designed and implemented *Machine Learning* probabilistic models and *Visualization* infrastructure for *Big Data* analysis, in particular for *Ad Click Prediction*. | 2014,  Jun–Sep  2013,  Jun–Sep |
|  | Facebook Inc., Spam Detection Team (Site Integrity)  Graduate Internship  Designed and implemented *Machine Learning* models for the detection of *spam users* and *content*. | 2012,  May–Aug |
|  | University of Maryland Department of Computer Science  Graduate Teaching Assistant  CMSC702 – Computational Systems Biology (Instructor: Dr. Hector Corrada)  CMSC433 – Parallelism and Multithreading in Java (Instructors: Dr. Adam Porter, Dr. Tom Yeh)  CMSC420 – Data Structures (Instructor: Professor Hanan Samet) | Jan 2011  –  Dec 2012 |
|  | Microsoft Inc., Office Team (Lync Server)  Software Design Engineer  Designed database optimization software for improving the performance of the Lync Communication Server. | Jun 2010  –  Jan 2011 |
|  | Microsoft Inc., Bing Team (Search Domain Relevance)  Software Design Engineer in Test  Designed and developed software for measuring the quality of web search results. Specifically, created Machine Learning models for improving the relevance of the content of text snippets. | Sep 2008  –  Jun 2010 |
|  | Code40 Inc. Romania  Undergraduate Internship  Designed and implemented components of a web server application for micro-loans: caching, back-end data validation, error handling. | 2007,  Jul–Aug |
| Publications | **F. Chelaru\***, J. N. Paulson and H. C. Bravo, “Metaviz: Integrative visualization for metagenomics”. *Under preparation*. | |
|  | **F. Chelaru\*** and H. C. Bravo, “Epiviz: a view inside the design of an integrated visual analysis software for genomics”. *In press, 5th IEEE Symposium on Biological Data Visualization, BioVis 2015*. | |
|  | **F. Chelaru\***, L. Smith, N. Goldstein, and H. C. Bravo, “Epiviz: interactive visual analytics for functional genomics data,” *Nature Methods*, vol. 11, no. 9, pp. 938–940, Aug. 2014. <http://dx.doi.org/10.1038/nmeth.3038> | |
|  | H. C. Bravo\*, **F. Chelaru**, L. Smith and N. Goldstein, “epivizr: R Interface to epiviz web app,” Bioconductor package: 1.4.2. | |
|  | **F. Chelaru\*** and L. Ciortuz, “Combining old-fashioned computer go with monte carlo go,” in *Proceedings of the 2008 10th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, SYNASC 2008*, 2008, pp. 216–222.  <http://dx.doi.org/10.1109/SYNASC.2008.77> | |
|  | S. Iftene\* and **F. Chelaru**, “The general Chinese remainder theorem,” in *International Scientific Journal of Computing*, vol. 6, issue 1, pp. 44-50, 2007. <http://www.computingonline.net/archieve/IJC_2007_06_1_05.pdf> | |
| Open-Source Software | Epiviz ([epiviz.cbcb.umd.edu](http://epiviz.cbcb.umd.edu/?ws=cp5EiNjL3Bl) [](http://epiviz.cbcb.umd.edu/?ws=cp5EiNjL3Bl))  [ epiviz](https://github.com/epiviz), [epiviz.github.io](http://epiviz.github.io)  A web visualization tool used to aid in the analysis and exploration of large functional genomics data.  Technologies used: HTML5, JavaScript (JQuery, [d3.js](http://d3js.org/) [](http://d3js.org/), WebSockets), PHP, MySQL, R/Bioconductor, Python. | |
|  | **IsoCreator** ([iso-creator-cs.sourceforge.net](http://iso-creator-cs.sourceforge.net/) [](http://iso-creator-cs.sourceforge.net/)), released February 2007  A .NET app used to create ISO 9660 Joliet CD/DVD images from folders on the local machine. It currently has [~20K downloads per month ](http://sourceforge.net/projects/iso-creator-cs/files/iso-creator-cs/stats/timeline?dates=2007-01-19+to+2014-10-25).  Technologies used: C#, .NET Framework 2.0. | |
| Technical Skills | OO Low-level Languages: Java (J2EE); Microsoft .NET (C# and the CLR); C; C++.  OO and Functional High-level Languages: Python; R/Bioconductor; JavaScript (JQuery), PHP.  Databases: SQL (MySQL, Microsoft SQL Server); Apache Hive (Hadoop). | |
| Languages | Romanian – native, English – fluent. |  |
| References | Dr. Héctor Corrada Bravo  Department of Computer Science, Biomolecular Sciences Building, University of Maryland  College Park, MD 20742  [](mailto:hcorrada@umiacs.umd.edu) [hcorrada@umiacs.umd.edu](mailto:hcorrada@umiacs.umd.edu)  301-405-2481 | |
|  | Dr. Mihai Pop  Department of Computer Science, Biomolecular Sciences Building, University of Maryland  College Park, MD 20742  [](mailto:mpop@umiacs.umd.edu) [mpop@umiacs.umd.edu](mailto:mpop@umiacs.umd.edu)  301-405-7245 | |
|  | **Dr. Jack van Ryswyck**  Artificial Intelligence, Rocket Fuel Inc., 1900 Seaport Blvd  Redwood City, CA 94063  [](mailto:javhar@rocketfuelinc.com) [javhar@rocketfuelinc.com](mailto:javhar@rocketfuelinc.com) | |
|  | **Dr. Michael Benisch**  Artificial Intelligence, Rocket Fuel Inc., 1900 Seaport Blvd  Redwood City, CA 94063  [](mailto:mbenisch@rocketfuelinc.com) [mbenisch@rocketfuelinc.com](mailto:mbenisch@rocketfuelinc.com) | |