Researchers' and Post-Doc Positions for ERC Consolidator Grant

Several positions for contractual researchers and post-docs are open for our ERC Consolidator Grant that kicks off January 1st, 2015 and runs for the next 5 years. The grant is entitled **"CAUSALPATH: Next Generation Causal Analysis: Inspired by the Induction of Biological Pathways from Cytometry Data"** and is funded from the European Research Council under the European Union's Seventh Framework Programme (FP7/2007-2013) / ERC grant agreement **n° 617393**. The Principal Investigator of the grant is Prof. Ioannis Tsamardinos. ERC grants are prestigious European research programs that support scientific excellence and provide research autonomy and flexibility. The grant has several ambitious goals and directions: (a) basic research on causal discovery, causal analysis, and causal modeling, (b) application on de novo inducing signal pathways from mass cytometry data, and (c) design of automated tools for causal discovery and signal pathways. CAUSALPATH is coordinated by our group in the Computer Science Department of University of Crete in collaboration with the Computational Medicine Unit in Karolinska Insitutet.

Regarding our group

Our group is a **highly multi-disciplinary** (including researchers with applied math, computer science, engineering, biology, signal processing backgrounds) and **multi-national** team of about 15 undergraduates, graduate students, post-docs and researchers. We focus on data analysis and machine learning with an emphasis on biomedical data and problems inspired by biological research. We maintain numerous national and international collaborations with biology and medical groups in synergistic, funded research programs. In addition, we have experience with commercialization of our novel methods. Our group has attracted more than 2.5M euro in last 2 years in European, Greek national, and international research grants.

Regarding the positions

We are looking for bright, ambitious, energetic, hard-working researchers to join our effort and lead fundamental breakthroughs in the field. All applicants should have a strong algorithmic and mathematical background, a strong publication record in the field, and experience with designing and executing research plans; they should be able to work well as parts of a multi-disciplinary team and have excellent communication skills in English. All applicants should have a Ph.D. in a related field, such as computer science, engineering, statistics, applied mathematics, operations research, or bioinformatics.

There are several positions available with formal procedures for hiring. Please, check the procedure carefully before applying at the University of Crete website. While the formal procedures have specific deadlines, interested applicants should still contact Prof. Tsamardinos to discuss the possibilities of hiring in future calls.

Positions Available:

We are primarily interested in the following fields:

- **Causal Discovery, Causal Modeling, Causal Analysis expert**. The applicant must have a Ph.D. related to one of these research directions and experience with algorithms, methods and analysis based on at least one of the following causal formalism, such as Bayesian Networks, Maximal Ancestral Graphs, Chain Graphs, Semi-Markov Causal Models, Structural Equations Models, Differential Equations, or functional analysis of causal relations. Experience with analysis of biological data and analysis of high dimensional data is a plus.
- **Machine Learning expert.** We are particularly interested in areas such as Data Fusion, Relational Learning, Representation Learning, and learning in Big Data settings.
- **Scientific Programmer**. The applicant should have experience in programming scientific tools and applications, optimizing scientific algorithms and computations, experience with parallel computing, and engineering large information systems. Experience with biological applications is a plus.
- **Statistical expert.** The applicant must have a Ph.D. in multivariate statistics or related field. Experience with analysis of biological data and analysis of high dimensional data is a plus.

While the ERC grant provides funding for up to 5 years, our group is continuously and actively seeking research funding to secure the contracts of all hires. We welcome application from international applicants. Fluency in English is necessary; no knowledge of Greek is required.

Compensation is extremely competitive for the Greek cost of living.

Location:

University of Crete is located near Heraklion, the 4th largest city in Greece on the coast of the island of Crete. The location is ideal for people who enjoy sunny weather and aquatic activities, or are attracted by the history and archeological sites of the island. The Computer Science Department, who will host the research activities, is sited in new buildings and research facilities completed in 2013.

The contracts should ideally start on February 2015 or within a few months. Later start dates are possible if agreed up with the Principal Investigator Prof. Tsamardinos.

Procedure:

Formal procedures will be announced by the University of Crete. For informal inquiries, please, send the following material:

- Curriculum Vitae
- Statement of research qualifications and interests
- At least three reference letters should be sent directly

by email to tsamard.it@gmail.com and androul.mary@gmail.com

For more information contact:

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For information on our group and the grant:

www.mensxmachina.org
www.mensxmachina.org/causalpath