

PhD in INGEGNERIA DELL'INFORMAZIONE / INFORMATION TECHNOLOGY - 39th cycle

Research Area n. 1 - Computer Science and Engineering

THEMATIC Research Field: SOFTWARE FAIRNESS

| Monthly net income of PhDscholarship (max 36 months) | | |
|--|--|--|
| € 1400.0 | | |
| In case of a change of the welfare rates during the three-year period, the amount could be modified. | | |

| Context of the research activity | | |
|--|---|--|
| Motivation and objectives of the research in this field | Software systems are more and more used to make decisions and to solve complex and important tasks. These systems are often based on ML components, which may provide wrong, biased, or unfair decisions. The research wants to tackle this problem, which requires a specific treatment, and proposes the identification of novel non-functional requirements, testing solutions, and possible mitigations strategies. | |
| Methods and techniques that will be developed and used to carry out the research | This work lies in the context of software engineering and aims to address the fairness problem of modern software systems by developing innovative software engineering solutions and tools to identify and mitigate the problem, but also to create software systems that are fair by construction. | |
| Educational objectives | Train and motivate next-generation software experts | |
| Job opportunities | Modern software engineers, ML experts, quality experts, governmental agencies. | |
| Composition of the research group | 1 Full Professors 0 Associated Professors 1 Assistant Professors 1 PhD Students | |
| Name of the research directors | Prof. Luciano Baresi | |

POLITECNICO DI MILANO



| | Contacts |
|--------------------------|----------|
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| Additional support - Financial aid per PhD student per year (gross amount) | | |
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| Housing - Foreign Students | | |
| Housing - Out-of-town residents (more than 80Km out of Milano) | | |

| Scholarship Increase for a period abroad | | |
|--|---------|--|
| Amount monthly | 700.0 € | |
| By number of months | 6 | |

Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information

EDUCATIONAL ACTIVITIES (purchase of study books and material, including computers, funding for participation in courses, summer schools, workshops and conferences): financial aid per PhD student.

TEACHING ASSISTANTSHIP: (availability of funding in recognition of supporting teaching activities by the PhD student) There are various forms of financial aid for activities of support to the teaching practice. The PhD student is encouraged to take part in these activities, within the limits allowed by the regulations.

COMPUTER AVAILABILITY: individual use

DESK AVAILABILITY: individual use