

Dissertation Abstract

Sociometrics in Software Engineering

# Automated Social Recruiting through GitHub

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In order to find potential software engineers, companies search for candidates on various job portals and compare their competencies and experience with the job requirement. But this is a very cumbersome process as there is no way to validate the skills on a resume. Also, many times resume is not up to date and there is low availability of niche profiles. There are cases of fake projects and skills in resume as well.

The aim of this dissertation is to find possibility of existence of an automated system that provides recommendations of software engineers for a job. We have developed a system that identifies skills of software engineers from contributions done in open source platform, GitHub, and matches them against the skill requirements presented by a job description. The extraction of skill from the job description is done through an information extraction system built using natural language processing technique.

Our results indicate that existence of such an automated system is possible and is a scalable, efficient and effective solution for the recruitment problems mentioned above. We have also outlined the limitations of our system in this dissertation.