



Bright Society Assignment Description

Bright Society is a talent incubator, facilitating young Bright people to boost their early career. During a 3-year program these young academics, all with a PhD degree, discover their passion and talent. Through intensive guidance, facing challenges in a variety of companies they experience true inspiration. We have a new talent seat open at our partner Kulicke & Soffa for a role as **Mathematical Software Designer – Optimizer**.

Introduction

The optimizer team is a team of 6-8 developers which main focus is to maintain and develop new features for the optimizer product. Main purpose of the optimizer product is to generate placement programs (recipes) which can be used by K&S equipment to produce printed circuit board. These placement programs should be time optimal, meaning giving the highest machine throughput.

Job Mission

Generating optimal placement programs is very complex since the solution space is huge. Variation points are the PCB layout, the component shape, different ways of aligning components (laser, camera), various way of feeding components (tape, tray, stick, bulk, wafer), a large variety of toolbits for picking components (gripper, nozzle), inventory constraints (max number of feeders, toolbits and part used) and different machine concepts (dual head, dual gantry, indexing beam, parallel placement, dual lane etc) and machines products. Another important aspect of the optimizer is an accurate model of the machine hardware in order to fulfill a predication requirement of less than 5%.

Job Description

As one of our Software Designers, your primary challenge will be to create and implement maintainable designs for small enhancements and new features. This requires getting both a broad perspective of the environment of the software and deep insight into the nitty-gritty details. You and your team will work on the full development cycle of new features, product enhancement, troubleshooting and debugging.

Education

PhD with a Software (JAVA) background.

Experience

- You have spent several years developing Java software
- Experienced in Object Oriented Development (OOD)
- Know when and how to use design patterns
- Experienced with maintenance in a large codebase
- Accurate way of working, focus on quality
- Affinity with mathematics and complex (e.g. genetic) algorithms
- You're a team player with well-developed communication skills
- You're fluent in Dutch and English