



BACHELOR THESIS

Data Mining for Elastomer Performance Data

Are you looking for an opportunity to write your thesis in an industrial environment or obtain valuable industry experience, during or after your technical education? Here is one of many interesting topics we have on offer. We are also very open to your own ideas in order to create a matching opportunity for you at VAT.

Innovation has always been the driving force at VAT since the company was founded over 50 years ago. This has made us the world leader in vacuum valves and vacuum sealing technology. This pioneering spirit motivates us daily to meet our customers' requirements with enthusiasm. Together with our employees we stand for passion, innovation and quality. VAT is headquartered in Haag (Switzerland) and employs approximately 2 000 people worldwide. It has production centers in Haag (Switzerland), Penang (Malaysia) and Arad (Romania) as well as a production facility in Xinwu (Taiwan). With our customers mainly being situated in the United States and Asia, this provides a great opportunity to start an international career.

What you will explore:

Sealing is most important in vacuum technology and responsible for valve leak tightness. In dynamic sealing applications, high performance elastomers are applied in large quantities. There are several suppliers of high performance elastomers in the global market. All these suppliers offer a variety of products for the different applications performed with semiconductor production tools. The level of performance of these products however is not clearly visible. Usually the suppliers of certain products generate their own set of performance data, which usually are not fully comparable between the different suppliers. The intent of this job is to search all available data bases for elastomer performance data relevant to semiconductor applications, format such data and bring it into a presentable form.

- Analyze existing data and find gaps to be filled
- Define solution for a web-based data approach
- Create tool and test functionality

What you will need:

- Knowledge in material science, chemistry, physics or mechanical engineering
- Experience in web-based data search (data mining), data formatting and presentation
- Sufficient knowhow in software programming (e.g. script writing)
- Curiosity and ability to think outside the box

Are You Ready for the Challenge?

Then we look forward to receiving your **electronic application sent to Joe Kaelin**.

E-Mail: j.kaelin@vat.ch