

## **A brief description of Sander Beekhuis**

Hi,

My name is Sander. I'm in the second year of the Discrete Mathematics and Applications program and look to start my thesis in September.

During my studies I've developed a liking for discrete mathematics and Graph Theory in particular. I sometimes like to look at these problems from an algorithmic viewpoint.

In addition to this I've obtained quite some experience in writing algorithms by following Computer Science courses

I wrote my Bachelor thesis in the field of Graph Theory. I investigated the relation between the crossing number and the *rectilinear crossing number* (i.e. The crossing number under the requirement that all edges are drawn as line segments.).

### **What do I want from my thesis?**

Currently I'm thinking about possibly pursuing a PhD I see my thesis as an opportunity to see if doing research something I enjoy. I would therefore prefer a thesis at the TU/e over a thesis written at a company.

If there is some simulation/computational/experimental component in my thesis I would enjoy this, but this is definitely not a requirement.

### **What do I offer?**

I learn new things relatively quickly. Learning is something I enjoy doing. I think this is something that is reflected in my average grade.

I think I have an adequate research mentality. Since, I don't like giving up and instead keep looking at a problem from different angles.

However I don't overshoot, when I'm truly stuck I'll lay something aside to look at it the next day or I ask questions.

## **Full List of Master Courses**

### **Tu/e Courses**

Cryptology	9
Optimization	9
Advanced Algorithms	8
Applied Functional Analysis	10
Geometric Algorithms	8
Multilinear Algebra and Applications	8
Graphs and Algorithms	9
Algorithms for Geographic Data	8
Random Graphs	Q4
Integer Programming	Q4
Algebraic Combinatorics	Q4

### **Mastermath Courses**

Symplectic Geometry	7
Discrete Optimization	9
Advanced Combinatorics	8
Algebraic Topology	6