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GitHub/Jannertje

# Jan Westerdiep

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The Netherlands

I am a busy bee, a fast learner, a kid at heart, and eager to explore new ideas. I tinker with everything I see and enjoy understanding “how it works”. Mathematics and computer science are my thing. I am hoping to find and learn from an internship position this Fall in the field of Software Engineering.

## EDUCATION

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### University of Amsterdam

*M.Sc. Mathematics (GPA: 8.8/10)*

Fall 2014 – Fall 2017 (expected)

*Amsterdam, The Netherlands*

- Selected coursework: functional analysis, numerical analysis, algorithm design, optimization;
- ASML Technology Scholarship for excellent students in the high-tech sector.

### University of Amsterdam

*M.Sc. Computational Science (GPA: 8.8/10)*

Fall 2014 – Fall 2017 (expected)

*Amsterdam, The Netherlands*

- Main focus: machine learning, simulation, numerical mathematics.

### University of Amsterdam

*B.Sc. Mathematics (GPA: 8.6/10; Cum Laude)*

Fall 2011 – Fall 2014

*Amsterdam, The Netherlands*

- Including Honours certificate;
- Combined thesis on a novel algorithm for piecewise polynomial approximation in 1 and 2 dimensions. Advisor: R.P. Stevenson, graded 9.75/10.

### University of Amsterdam

*B.Sc. Computer Science (GPA: 8.7/10; Cum Laude)*

Fall 2011 – Fall 2014

*Amsterdam, The Netherlands*

- Courses on algorithm analysis, compiler construction, GPU & parallel programming.

## EXPERIENCE

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### ASML

*Technology Scholar*

Fall 2014 – Fall 2016

*Veldhoven, NL*

- €10000 scholarship that is awarded annually to 25 Dutch Master's students in the high-tech sector;
- Selection based on academic accomplishments and interpersonal skills;
- Monthly meetings with personal coach, and management-, soft skill & personal development trainings.

### University of Amsterdam

*Lecturer (8 hrs/week)*

Spring 2016

*Amsterdam, NL*

- Creating and lecturing a weekly workshop on Competitive Programming with hands-on lectures in tree & graph problems, dynamic programming, and sorting followed by weekly competitions;
- Currently 10 to 20 weekly attendants, with as a goal to get 2 teams into the ICPC European finals.

### Copernica Marketing Software

*Software Engineering Intern (8 hrs/week)*

November 2015 – Current

*Amsterdam, NL*

- Contributing to and writing documentation for high-performance parallel applications written in C++.

### University of Amsterdam

*Study Advisor – Double Bachelor*

Fall 2011 – Fall 2015

*Amsterdam, NL*

- Presenting for and conversing with pre-university students, hoping to inspire them for our Double Bachelor programme.

## PROJECTS

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### ***hp*-AFEM implementation**

Fall 2015 – Current

- First-ever implementation of a novel *optimal* algorithm in the field of Finite Element Methods;
- Very technically challenging from both mathematical and software architectural viewpoint;
- Goals: working library and visualisation tool; publication in scientific journal; correctly identifying and applying design patterns. Written in C++, Python, MATLAB.

### **Apparatus**

Spring 2016

- Bag-Of-Features image classifier using Machine Learning methods. Final solution yields 99.5% accuracy on a held-out test set of images. Written in MATLAB.

### **Parallel Conjugate Gradients on Sparse Stiffness Matrices**

Spring 2015

- In-depth analysis and massively parallel implementation of numerical linear algebra algorithm, with a novel application in Finite Element Methods. Written in C, using OpenMP and MPI.

### **Keyboard brain transplant**

Spring 2015

- Mod of my Happy Hacking Pro 2 keyboard, making it fully hardware programmable by desoldering the original controller and replacing it with an alternative.

## **EXTRACURRICULARS**

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### **Stichting Bèta Bedrijvencontactdag Amsterdam**

Fall 2014 – April 2015

*Board member: Head of Marketing for Bèta Career Event 2015 (20 hrs/week) Amsterdam, NL*

- Responsible for design & print, marketing strategies, website, student registrations, acquisition;
- 50% increase of student participants wrt. earlier editions (from previous 350);
- Acquisition of several companies in the technology sector, such as ASML, MediaMonks, Thales, IBM.

### **Jellinek Verslavingszorg**

November 2014 – Current

*Volunteer: Peer Educator for Unity Amsterdam Amsterdam, NL*

- Unity is a volunteer project for and by adolescents in the dance scene. We provide harm reduction education at dance events by having conversations and taking quizzes.

### **Phanos Amsterdam**

2007 – 2012

*Top athlete in Track & Field Amsterdam, NL*

- Performed in various national and international events, in the short sprint (100m, 200m) and 4×100m relay disciplines, conquering a ninth all-time place in the Dutch 200 metres Under-20 rankings;
- Member of the 2012 Dutch Under-20 World Championships relay team.

## **HONOURS AND AWARDS**

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<b>2015</b>	29th place, Northwest-European finals of International Collegiate Programming Contest
<b>2015</b>	Silver medal, Newcraft Big Data Challenge
<b>2014</b>	ASML Technology Scholarship
<b>2012</b>	Silver medal, Dutch national championships Under-20 in the 200 metres
<b>2008</b>	Silver medal, Mathematics Tournament (Radboud University Nijmegen)

## **SKILLS**

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<b>Computer Languages</b>	C++, C, Python, MATLAB, PHP, SQL, CSS, JavaScript, Objective-C (iOS), Java (Android)
<b>Tools</b>	vim, git, L <sup>A</sup> T <sub>E</sub> X, Photoshop, Mac OSX, GNU Linux
<b>Natural Languages</b>	Dutch ( <i>mother tongue</i> ), English ( <i>full professional proficiency</i> )

## **INTERESTS**

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Live music performances, typography, athletics, competitive programming.