

# EUROPEAN CURRICULUM VITAE FORMAT



## PERSONAL INFORMATION

Name  
Telephone  
E-mail, MSN  
Skype  
Nationality  
Date of birth  
Driving licence

**ROLAND PIHLAKAS**  
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**roland@simplify.ee**  
**roland**  
Estonian  
27. OCT 1980  
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## WORK EXPERIENCE

- Dates (from – to)
- Name and address of employer
  - Type of business or sector
  - Occupation or position held
- Main activities and responsibilities

2009 and onwards  
Simplify (Macrotec LLC) - [www.simplify.ee](http://www.simplify.ee)  
Software architecture, programming, R&D  
Head, software architect, algorithm developer and optimiser  
Communication with clients, project leading, selling, finance and programming.  
You can see some of the completed projects in our homepage [www.simplify.ee/portfolio](http://www.simplify.ee/portfolio). Almost all of the software listed there is programmed by me.  
I am creator and current developer of our generic constraint solver frameworks.

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2009 - 2013  
Nortal LTD (former Webmedia LTD)  
Software programming  
Software architect, algorithm developer and optimiser  
Writing optimisation, resource planning and prediction algorithms. Examples include workforce timetabling problems, compression algorithms and forecasting.

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2002 and onwards  
Trueweb (Macrotec LLC) - [www.trueweb.ee](http://www.trueweb.ee)  
Web, design, programming  
Head and webmaster  
Communication with clients, project leading, selling, finance and programming.  
You can see some of the completed projects in our homepage [www.trueweb.ee/portfolio](http://www.trueweb.ee/portfolio). Almost all of the websites listed there are programmed by me.  
I am creator and current developer of our high-level content management system.

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  - Occupation or position held
- Main activities and responsibilities

2002 - 2009  
Haireklaam - [www.haireklaam.ee](http://www.haireklaam.ee)  
Full-time marketing and advertisement agency  
Co-operating webmaster  
Responsible for organizing the IT part of their projects, mainly did the programming myself.

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2001 - 2012  
Lahendus.net  
Social, noncommercial. Lahendus.net is a portal for personal psychological counselling, where psychology students share their knowledge and support.  
Founder, analyst, webmaster and designer  
I invented the idea and helped to start the project. In devising and building the website I did all the accompanying tasks - from ground to the complete working system.  
Later I participated as psychologist-counsellor, also organized upgrades to the site.

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- Main activities and responsibilities

1996 - 1999  
Pinal LLC  
Office accessories shop  
Salesman

1995 – 1999  
Voldemar Kullarand FIE  
Design and advertisement agency  
Designer and computer administrator  
All computer-related design job and also building street advertisements.

## EDUCATION AND TRAINING

- Dates (from – to)
- Name and type of organisation providing education and training
- Principal subjects/occupational skills covered
- Title of qualification awarded
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2007 - the studies are currently on hold  
University of Tartu, Institute of Technology, Intelligent Materials and Systems Lab

Safe Artificial Intelligence and Modelling of Natural General Intelligence. The first part is essentially aiming at a more formalized implementation of the three laws of robotics.  
PhD. The doctorate studies are in progress

1999 - 2007  
University of Tartu

Major: psychology; minor: social work and sociology. My seminary work and bachelors thesis were about modelling the processes of innate thought and learning at the high level of abstraction. The processes of innate thought are also the enabling basis for culturally acquired processes – that is, theoretically the basis to the “adaptive programmable mind”.  
Bachelor of Science

1988 - 1999  
Laagna Secondary School

Real bias, all secondary school subjects.  
I got also courses in philosophy, history of religions and lessons of civil education.  
Secondary education with a certificate of merit

## SUPPLEMENTARY EDUCATION AND TRAINING

- Dates (from – to)
- Name and type of organisation providing education and training
- Principal subjects/occupational skills covered
- Dates (from – to)
- Name and type of organisation providing education and training
- Principal subjects/occupational skills covered

August 2013, one week  
Institute of Computer Science in University of Tartu and Tallinn University of Technology

12th Estonian Summer School in Computer and Systems Science  
Topics: Mobility Data analysis, Opinion Mining, Social Networks, Privacy technologies

July 2013, two days  
Säästvad Ehituslahendused LLC

Workshop: Building and restoring fieldstone foundations and walls

- Dates (from – to) February 2013, two days
  - Name and type of organisation providing education and training Säästvad Ehituslahendused LLC
  - Principal subjects/occupational skills covered Workshop: Building masonry heaters
  
- Dates (from – to) August 2012, four days
  - Name and type of organisation providing education and training Samsaara NGO
  - Principal subjects/occupational skills covered Workshop: Building small wind turbines
  
- Dates (from – to) February – April 2012
  - Name and type of organisation providing education and training Sebastian Thrun, Udacity
  - Principal subjects/occupational skills covered Advanced track of online course on Programming a Robot Car, CS 373
  
- Dates (from – to) October – December 2011
  - Name and type of organisation providing education and training Sebastian Thrun and Peter Norvig, Stanford Engineering
  - Principal subjects/occupational skills covered Advanced track of online course on Artificial Intelligence, based on Stanford CS221 (Introduction to Artificial Intelligence)
  
- Dates (from – to) October – December 2011
  - Name and type of organisation providing education and training Andrew Ng, Stanford Engineering
  - Principal subjects/occupational skills covered Advanced track of online course on Machine Learning, based on Stanford CS229A (Applied Machine Learning)
  
- Dates (from – to) August 2010, three days
  - Name and type of organisation providing education and training OÜ Autosõit
  - Principal subjects/occupational skills covered First aid
  
- Dates (from – to) August 2010, one week
  - Name and type of organisation providing education and training Institute of Computer Science in University of Tartu and Tallinn University of Technology
  - Principal subjects/occupational skills covered 9th Estonian Summer School in Computer and Systems Science  
Topics: Similarity Search and Evolutionary Computing
  
- Dates (from – to) August – December 2009, 60 academic hours
  - Name and type of organisation providing education and training SA Archimedes Euroopa Noored, Lauri Lahi and Uku Visnapuu
  - Principal subjects/occupational skills covered Educating the youth
  
- Dates (from – to) February – April 2009, 8 academic hours
  - Name and type of organisation providing education and training Tartu Folk High School, Kristo Käo
  - Principal subjects/occupational skills covered Classical guitar course for advanced players
  
- Dates (from – to) September – November 2008, 8 academic hours
  - Name and type of organisation providing education and training Tartu Folk High School, Kristo Käo
  - Principal subjects/occupational skills covered Classical guitar course for advanced players

- Dates (from – to) September 2008, two days
  - Name and type of organisation providing education and training Private school “Ahimsa” and International Center For Nonviolent Communication
  - Principal subjects/occupational skills covered Method for nonviolent conflict solving
  
- Dates (from – to) August 2008, one week
  - Name and type of organisation providing education and training Institute of Computer Science in University of Tartu and Tallinn University of Technology
  - Principal subjects/occupational skills covered 7th Estonian Summer School in Computer and Systems Science  
Topics: Web Data Mining and Dependable Secure Systems
  
- Dates (from – to) February – April 2008, 16 academic hours
  - Name and type of organisation providing education and training Tartu Folk High School, Kristo Kõo
  - Principal subjects/occupational skills covered Classical guitar course for beginners
  
- Dates (from – to) March 2008, one week
  - Name and type of organisation providing education and training Estonian Doctoral School in Information and Communication Technologies
  - Principal subjects/occupational skills covered 13th Estonian Winter School in Computer and Systems Science  
Topics: Cryptography & Secure computation, Programming Reactive systems, Semantics
  
- Dates (from – to) September 2007, one week
  - Name and type of organisation providing education and training IEEE Robotics and Automation Society (RAS) and the International Foundation of Robotics Research (IFRR)
  - Principal subjects/occupational skills covered IEEE-RAS / IFRR School of Robotics Science on Learning
  
- Dates (from – to) August 2007, one week
  - Name and type of organisation providing education and training Estonian Doctoral School in Information and Communication Technologies
  - Principal subjects/occupational skills covered 6th Estonian Summer School in Computer and Systems Science  
Topics: Automatic Planning and Decision-Making, Interactive computations
  
- Dates (from – to) 2005
  - Name and type of organisation providing education and training Robotics Club in University of Tartu
  - Principal subjects/occupational skills covered Robot competition “Robotex 2005”. Our team achieved the fourth place.
  
- Dates (from – to) September 2005, one week
  - Name and type of organisation providing education and training Institute of Technology in University of Tartu
  - Principal subjects/occupational skills covered Entrepreneurial training “How to Create and Sell Your Business Concept”
  
- Dates (from – to) May 2005, three days
  - Name and type of organisation providing education and training Institute of Technology in University of Tartu
  - Principal subjects/occupational skills covered Creative methods for technical problem solving
  
- Dates (from – to) 1997 - 1999
  - Name and type of organisation providing education and training University of Art in Tallinn
  - Principal subjects/occupational skills covered Painting and drawing courses

- Dates (from – to) 1999
- Name and type of organisation providing education and training University of Art in Tallinn
- Principal subjects/occupational skills covered Sculpture and design
  
- Dates (from – to) 1998 - 1999 (seven months)
- Name and type of organisation providing education and training Tea language school
- Principal subjects/occupational skills covered English language; intensive courses
- Title of qualification awarded Fourth level.
- Level in national classification Comparable to the level of secondary education. After 7 months of studying the language I got 82 points at national examination.
  
- Dates (from – to) 1997 - 1998
- Name and type of organisation providing education and training Junior Achievement Estonia
- Principal subjects/occupational skills covered Economics

## TALKS AND TRAININGS GIVEN

- Dates (from – to) September 2014, one lecture
- Target group AS Sertifitseerimiskeskus (Certification Centre Ltd), Information Technology Development Department
- Principal subjects/occupational skills covered Overview of recent developments in artificial intelligence
  
- Dates (from – to) June 2011, one lecture
- Target group Physics students
- Name and type of organisation providing education and training Füüsika suvepäevad (Physics summer days)
- Principal subjects/occupational skills covered Solving combinatorial optimization problems
  
- Dates (from – to) December 2009, one training
- Target group Tallinna Ühisgümnaasium
- Name and type of organisation providing education and training Educating the youth / SA Archimedes Euroopa Noored
- Principal subjects/occupational skills covered Nonviolent communication
  
- Dates (from – to) 2005, three lectures
- Name and type of organisation providing education and training Robotics Club in University of Tartu
- Principal subjects/occupational skills covered Artificial intelligence and modelling of natural thinking
  
- Dates (from – to) 2004, one training
- Target group Campus of University of Tartu
- Name and type of organisation providing education and training Practical course work for Organizational Behaviour by Maaja Vadi
- Principal subjects/occupational skills covered Cooperation

- Dates (from – to) 2003, one training
- Name and type of organisation providing education and training “Incubator” in Self
- Principal subjects/occupational skills covered Teamwork

## COMPETITIONS AND OLYMPIADS

- Dates (from – to) June 2016 – May 2017
- Name of competition Robot Judges Competition
- Name and type of organisation hosting the competition Estonian Bar Association, IT Law Programme of the University of Tartu, Nortal LTD and others
  - Subject Semantic legal text search engine
  - Participation We built a legal text search engine that uses semantic search algorithm in order to find related keywords and sort the results by relevance.
  - Result 1<sup>th</sup> place. Our team won 6k eur financial support for efforts so far and for continuing with our project.

- Dates (from – to) November 2013 – April 2014
- Name of competition Negavatt
- Name and type of organisation hosting the competition Keskkonnainvesteeringute Keskus (Environmental Investment Centre), Keskkonnaministeerium (Ministry of Environment)
  - Subject Resource efficiency
  - Participation Introducing novel kind of Windows software called Green Wave, which intelligently reduces and manages the resource use of background programs. As a result the work on computer is smoother and more responsive, providing better user experience, the user can save time, and the energy use is smaller. The computer is quieter, the temperature is lower, and battery lasts longer.
  - Result Shared 3<sup>rd</sup>/4<sup>th</sup> place. Our team won 10k eur financing for implementing the idea.

- Dates (from – to) April 2005 – November 2005
- Name of competition Robotex 2005
- Name and type of organisation hosting the competition University of Tartu, Tallinn University of Technology
- Principal subjects/occupational skills covered Building mechanics, electronics and software for autonomous robot
  - Subject Robotics
  - Participation Team leader of the team All Systems & Co
  - Result 4<sup>th</sup> place

- Dates (from – to) 1996, 1998
- Name of competition Over republican olympiad of mathematics at Tartu
- Name and type of organisation hosting the competition University of Tartu
- Principal subjects/occupational skills covered Solving creative problems in mathematics
  - Subject Mathematics
  - Participation Individual competitor
  - Result Last time achieving 3<sup>rd</sup> rank in the republic

## PERSONAL SKILLS AND COMPETENCES

MOTHER TONGUE

**ESTONIAN**

OTHER LANGUAGES

### ENGLISH

EXCELLENT

- Reading skills
- Writing skills
- Verbal skills

GOOD

GOOD

### RUSSIAN

GOOD

- Reading skills
- Writing skills
- Verbal skills

BASIC

GOOD

### GERMAN

GOOD

- Reading skills
- Writing skills
- Verbal skills

BASIC

BASIC

### FINNISH

BASIC

- Reading skills
- Writing skills
- Verbal skills

BASIC

BASIC

SOCIAL SKILLS AND COMPETENCES

TEAM WORK: currently in Simplify and Green Wave

NEGOTIATING: as a head of Green Wave, Simplify and Trueweb, and as a former salesman.

COUNSELLING: as a psychology student and counsellor in Lahendus.net

ORGANISATIONAL SKILLS AND COMPETENCES

- As a head of Green Wave, Simplify and Trueweb
- As one of the founders of Lahendus.net
- As a head of a team during "Robotex 2005" competition

TECHNICAL SKILLS AND COMPETENCES

Programming, web building. I can master excellently any programming language, whatever there will be need for. Some of the most used languages so far: C, C#, LINQ, SQL, C++ & metaprogramming, Matlab, R, Prolog, Haskell, LabView, Visual Basic, Assembly, Javascript, CGI/Perl, PHP, Ruby on Rails, Java, Python, regular expressions, DHTML, CSS, batch and shell scripting. Other programming-related competences include: Web security, wxWidgets, Curses/Ncurses, GPGPU programming (RapidMind, Brook+, OpenCL, OpenGL).

Other computer skills: 3D Robot simulations, all Windows-based OS-s at expert level, MS DOS, web and network related products, MS Word, Excel, PowerPoint, Adobe products, Corel products, Macromedia products, Microsoft Visual Studio, Statistica, SPSS, Matlab, Labview, miscellaneous time-management and mindmapping software.

Skills in electricity and electronics. During childhood these were my hobbies, later I used them as a member of Robotics Club in University of Tartu.

THINKING AND PROBLEM SOLVING

My core strength since childhood is that I am very good at understanding and solving complex systems. Programming, artificial intelligence and psychology are the main areas I use my systemic thinking abilities.

ARTISTIC SKILLS AND COMPETENCES

Painting and drawing, computer design. Moderate skills in guitar playing. Just my hobbies.

## **ADDITIONAL INFORMATION**

### **COMPETITIONS AND OLYMPIADS:**

I have participated in many local math olympiads since 1994, achieving 1st to 3rd places, some physics, history and language olympiads. 1996 and 1998 over republican olympiad of mathematics at Tartu, last time achieving 3rd rank in the republic.

### **SPORTS AND ATHLETICS:**

During secondary-school I participated in competitions of running and swimming; Have gone to swimming, karate, kick-boxing, judo and tennis, mountaineering trainings. Leisure-time hobbies are swimming, playing table tennis, jogging for long distances and travelling by bicycle, skating.

### **OTHER:**

I have lived in Finland as a guest student at secondary school time, as a representative of the most successful students of my school.

### **INTERESTS:**

Negotiation, counseling, cognitive and social psychology, problem-solving strategies, creativity, environment, pacifism, philosophy, meditation, brainstorming, humor, computers, music, art of thinking and communication, artificial intelligence.