

Niklas Hambüchen

Huegelstrasse 34, 8002 Zurich

Date of birth: 8 March 1991

Citizenship: German

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github.com/nh2

Education

2010 – 2014
Oct Jul

Imperial College London

MEng Computing, First Class Honours

Thesis: *Building-scale interior 3D reconstruction with KinectFusion*

2001 – 2009
Sep Jun

Gymnasium Otto-Kühne-Schule, Bonn

Abitur / Grade 1.0

Awards

Imperial College London

Microsoft Research Prize for an outstanding Master's project

IBM Prize for the best second year group projects

Gloucester Research Prize for the top 5 first year students

German National Computing Competition

Second place / top 10 out of 547

German National Academic Foundation

Scholarship

Extracurricular

First Year Owari Game AI Tournament Winner

ICHack University Hackathon Winner (3 times)

Work experience

Technology used

2015 - present

from Jan

FP Complete

Consulting, software development and training for various companies

Haskell

Management and technical leadership

Projects: Distributed cancer treatment simulations

Economical optimisations

GHC compiler improvements

Cryptocurrency implementations and audits

2014

Jul, 6 months

Google

Implemented job filtering logic for Google's open-source

cluster management tool: code.google.com/p/ganeti

Haskell, Python

2013

Apr, 6 months

Tsuru Capital Singapore Ltd

Options trading simulations, reporting, latency reduction.

Haskell

2012

Jul, 3 months

University of Nottingham

Emotion detection with EEGs.

Python, Haskell, C++

2011

Jul, 3 months

Google

Worked on Google CodeSearch.

Java, JS

Activities

- I'm a co-organizer of ZuriHac, the largest Haskell Hackathon in the world.
- Over the last 10 years, I have contributed to more than 250 open source projects, from simple fixes to in-depth, multi-week technical efforts.¹
- I like to understand, and be able to modify, every system I am using, from the highest level down to the CPU instructions.
- I appreciate upfront communication, clean design, good UX, correctness, reliability, performance, productive engineering tools, solid theoretical understanding, and rigorous investigations.
- At Imperial I was a Logic and Mathematics tutor, part of the ACM ICPC competition team, and organized various Hackathons. I still enjoy both teaching and competitive events.
- *hemokit* is a library I wrote to extract raw data from consumer EEGs to control your computer with your brain. If you are a domain expert on brain signal processing, please contact me.

Skills

I am experienced in modelling real world problems, designing simple and complex solutions, leading teams, getting projects off the ground, and choosing tools and infrastructure.

Preferred programming languages	Haskell, Python, C
Preferred environment	Linux
Other languages, techniques and tools I've used	Java, C++, Scala, Ruby, C#, x86 assembly, PHP, Prolog, JS, HTML, CSS, Angular, React, GTK, Android, Nix, Django, Rails, node.js, SQL, postgres, GlusterFS, Ceph, VR, Git
Miscellaneous	Raster and vector graphics design, server administration, Latex typesetting, European driving license

<u>Languages</u>	German (native), English (fluent), Spanish (rusty intermediate) French (basics)
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<u>Personal Interests</u>	Welding, Soldering, Computer Vision, Making, Fencing, Wind Surfing, Climbing, Hiking, Soprano Saxophone
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¹ You can find much of my code at github.com/nh2.