ALEKSANDR MATTAL

qute.bits@gmail.com

LIFE / EDUCATION

2004–2012	Christian-Albrechts-University - Kiel, Germany
	Diplom in **Computer Science** (with minor in **Mathematics**).
	Final grade: 1.95 (best possible: 1.0)
1996–2004	High school Tallinna Tõnismäe Reaalkool (with major in **Mathematics**) - Tallinn, Estonia
	Final grade: 4.89 (best possible: 5.0)
1997–2001	Art school Rakenduskunsti Erakool - Tallinn, Estonia
	Final grade: 8.17 (best possible: 10.0)
1987	born in Estonia

WORK EXPERIENCE

2014–Present	Murat Diril LTD - London, UK
	Freelancer as a Designer / Web Developer (JavaScript, PHP)
	· Programmed a communication/ordering platform (full stack, LAMP),
	· Developed the main website,
	· Upgraded CI of the company and produced full advertisement package (print).
2007–2014	H19 Produktion - Kiel, Germany
	Lead Designer / Web Developer (JavaScript, Python, PHP)
	· Developed (both frontend and backend) websites/services based on Wordpress/Contao,
	· Designed CI's, posters, flyers, catalogues, business cards etc.
2010	Raytrix - Kiel, Germany
	Internship (Research)
	· Lazer path optimization using pythagorean-hodograph curves in R^4,
	· Disproved given hypothesis and two of its generalized versions.
2006–2010	Christian-Albrechts-University - Kiel, Germany
	Scientific Assistant / Student Tutor / Programmer (C++, Java)
	· Proposed an algorithm for real-time matching of filmed objects with their 3D-models,
	· Implemented several real-time pattern recognition and triangulation algorithms,
	· Optimized image-recognition code so that it could be used in real-time video analysis,
	· Implemented several sheduling algorithms and a GUI for their usage (J2EE + Swing),
	· Tutored a lecture in cryptography, corrected students homework,
	· Voluntarily gave a sneak peak into Zero-Knowledge Proofs and PCP Proofs to the students.

RESEARCH EXPERIENCE

Field	Game Theory
Title	Extensive Form$^+$: Describing Games Linear Nature (Diploma Thesis, 52 pages)
PDF (in English)	`https://github.com/qutebits/final_thesis`
Supervisor	Prof. Dr. Thomas Wilke, chair for theoretical informatics, University of Kiel.
Description	Studied games with betting structures present in Poker. Proposed a new way to describe such structures, a strategy space and a set of equilibria on it. Proved the existence of such equilibria for finite Extensive Form$^+$ games satisfying perfect recall. Submitted in 2011.
Final grade:	1.0 (best possible: 1.0)

PORTFOLIO

GitHub Portfolio – https://github.com/qutebits/

Graphical Portfolio – http://www.coroflot.com/qutepixels/

Personal Blog – http://scriptogr.am/qutebits/

PROJECTS

YAML to PDF Resume Generator (Python Script) – https://github.com/qutebits/resume_42/
· Generates a small and nice PDF Resume out of YAML data,
· Main script is written in **Python**, translates **YAML** data into TEX using **Jinja** templating engine.
· This whole Resume is generated with it :)

VKontakte Playlist Downloader (Chrome Extension) – https://github.com/qutebits/vkpd/
· Chrome Extension for batch download of audio tracks from social network VKontakte,
· The blog post about it is here – http://scriptogr.am/qutebits/post/q01-vkontakte-playlist-downloader

Etsy Thug (Online Tool) – https://github.com/qutebits/etsy_thug/
· Tool for quick creation of Etsy collections.

Stackin (UI Concept) – https://github.com/qutebits/stackin/
· Responsive UI concept for sorted value-assigned text data (like Hacker News posts).

My Taste of Ideas (Blog Post) – http://scriptogr.am/qutebits/post/q04-qute-hack-ideas/
· 21 personal ideas that appeal to my taste,
· The blog itself is hosted on Scriptogr.am (static blog generator). I use **Markdown** for posts, **MathJax** for TEX snippets, **Dropbox** for posts sync and **GitHub** as storage for images.

SKILLS

Languages of choice	JavaScript, PHP, Python
Languages	C++, Java, Haskell, Assembler
Base Stack	jQuery + Wordpress/Contao, PHP, MySQL, Git
Design	Adobe Creative Suite

ACHIEVEMENTS

2004	Participant of International Mathematical Olympiad (IMO04 - Athens, Greece) as a representative of Estonian National Team.
2001	2. place, PC game character design competition (Etherlords, Nival Interactive, 2001).

HUMAN LANGUAGES

English	Fluently speaking and writing (IELTS 7.5/9.0, GMAT 730/800)
German	Fluently speaking and writing (TestDaF 17/20)
Estonian	Speaking and writing (Kesktase 89/100)
Russian	Native language