

ARTHUR SILBER

Stahnsdorfer Str. 142b, 14482 Potsdam | arthur@arthursilber.de | www.arthursilber.de | (+49)15122890170

IT-Systems-Engineering student with broad interests and the desire to deepen my knowledge in state-of-the-art technology and research. Passionate about creating innovative soft- and hardware solutions.

EDUCATION

since 2012

Hasso-Plattner-Institute, Potsdam: IT-Systems Engineering (B.Sc.)
(a highly competitive, privately founded public institute affiliated with the University of Potsdam)
Anticipated graduation date: 07/2015

2003 - 2012

Alexander-von-Humboldt-Gymnasium, Konstanz, Germany
Abitur, final GPA 1.0 (1.0 is best, 4.0 worst)

WORK EXPERIENCE

since 10/2014

Bachelor's project at the chair for Human Computer Interaction: web-based service for faster prototyping by combining 3d-printing with low-fidelity fabrication techniques (→ Lowfab)

since 9/2014

Teaching assistant at the chair for Human Computer Interaction
Tasks: development of a 3D framework (→ Mtq3D) for interactive floors and supporting 40 students developing applications with it in the class "designing interactive systems"

since 2013

Freelance developer with focus on Html 5, Node.js and Android development (→ Hotelapp, See-online)

2010-2011

Several vacation jobs at the International Solar Energy Research Center, Konstanz
Tasks: production, characterisation and documentation as well as testing of experimental solar cells and new solar cell concepts.

2010

Internship at the International Solar Energy Research Center, Konstanz

2008

Social internship at the Caritas, Konstanz
Tasks: supervising and motivating a group of 7 people with mental disabilities at a Caritas care home

ACHIEVEMENTS AND AWARDS

2014

Award for outstanding social commitment for the student's club for photography

2012

- 2nd prize at the federal stage of "Jugend Forscht", Germany's biggest junior science competition (~2000 competing entries). Invented and prototyped a device which helps teachers and students in science class (→GTR-Print). This included a patent application and an invitation to present at various technical fairs in Germany and a political festivity in Brussels.
- Several awards at high school graduation for outstanding grades and social commitment

2009-2011

- Several awards at the local and state level of "Jugend Forscht" for various science projects, e.g. the fabrication of and research on supraconductors
- Speaker at various scientific events for school students at the University of Konstanz, and the French-German student's congress in Strasbourg

SOCIAL COMMITMENT

since 2/2013

Team leader of the student's club for photography: organization and realization of workshops for fellow students, support of the institute's PR-department at events

up to 2012 (high school)

- Team leader of the yearbook comitee: organization, layouting and financial responsibility
- Team leader and speaker of the students council's PR-team: responsible for all publications released to students, teachers and the public, responsible for the website

SKILLS

Languages:

- German (mother tongue)
- fluent English spoken and written (Cambridge Certificate in Advanced English, level C2)
- basic knowledge of French (level B1)

Programming:

- Web-backend with Javascript/Coffeescript, Node.js, Express and MySQL
- Web-frontend with three.js, Bootstrap and jQuery
- Mobile apps with Java and C# (Xamarin) for Android
- Desktop applications with C++ (Qt) and C#

Server:

- Administration of 3 linux web & mail servers

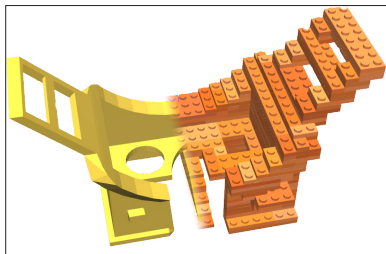
Design:

- Web design with HTML/CSS (jade/less)
- Print/Photography: profound knowledge in Illustrator, Lightroom and Photoshop

Prototyping:

- μ C programming with C/C++
- 3d-design with Autodesk Inventor
- USB-protocol reverse engineering and implementation
- designing PCBs (Eagle) and SMD soldering

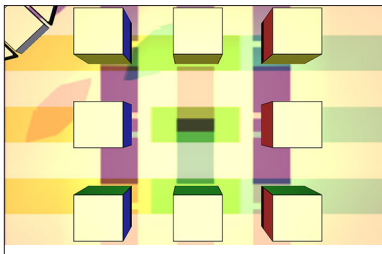
PROJECTS



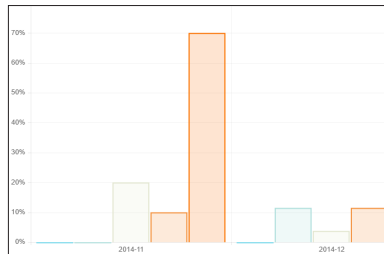
Lowfab (work in progress):

Web-based service for faster prototyping by combining 3d-printing with low-fidelity fabrication techniques.

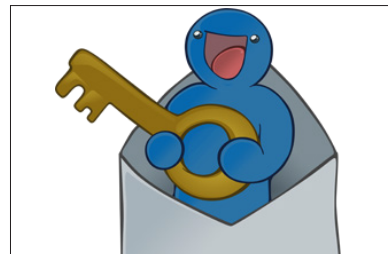
Javascript with Express and Node.js as backend, Three.js, Bootstrap and jQuery as frontend 3d editor. dev.lowfab.net



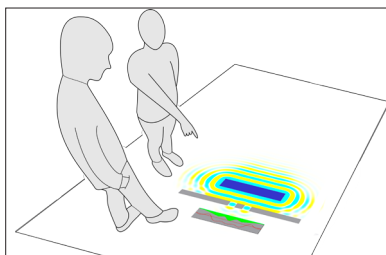
Mtq3D (2014): framework based on QtQuick3D to allow fast software prototype development for 3d-caves in QML/C++. Target device is a 8m² touch sensitive floor with 4k display resolution.



Hotelapp (2014): Online survey service for hoteliers to better understand their customers. Node.js + MySQL as backend, Bootstrap, jQuery and Chart.js as frontend. Bootstrap + jQuery for survey app (Android)



Sayfe (2014): decentral (direct and relayed connections, UPD peer discovery), end-to-end encrypted (RSA+AES) messenger for Android. www.sayfe.me

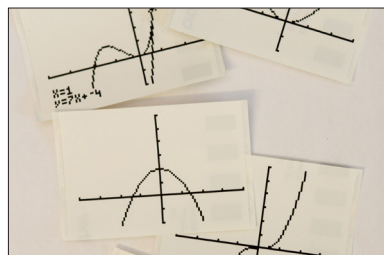


WaveExplorer (2013): A physically correct wave simulation supporting multiple concurrent users on an interactive floor. QML and C++ used for the core logic and UI, GLSL for rendering.

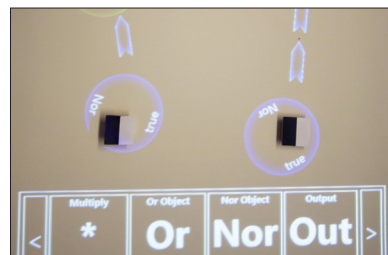
Video: bit.ly/wavexpl



See-online (2013): Android rss-reader for a local news-site (see-online.info) with branding.



GTR-Print (2012): patent pending, won several awards, shown on TV: print your scientific calculator's screen directly into your exercise book. Developed with AtMega, C++ and USB-Sniffing tools. www.gtrprint.de
Video: bit.ly/gtrprint



ObjectTable (2012): object-recognition & display library written in C# to use with Kinect+projector. Developed example applications like graphical programming, interactive and physically correct wave simulations.
Video: bit.ly/objecttable

REFERENCES

Available on request