

# Karl Traunmüller

Software Engineer (47)

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🐙 github



*In engineering, there is no 'impossible'.*

## Education

1993 – 1998 **Master of Science, Computer Science**, Johannes Kepler University, Linz.

## Work

- 2020 – present **Software Engineer**, *runtastic GmbH*.  
iOS software development (*Objective-C, Swift*)
- 2010 – 2020 **Freelance Software Engineer**.  
Mobile software development (*C++, Java, .NET, Objective-C, Swift*)
- 2006 – 2010 **Co-founder**, *Objectbay Software & Consulting GmbH*.  
Enterprise software development (*JBoss Enterprise Middleware, Eclipse Rich Client Platform*)
- 2002 – 2006 **Freelance Software Engineer**.  
Custom software development (*C++, .NET, Java*)
- 2000 – 2002 **Software Engineer**, *Segue Software GmbH*.  
Software Engineer Load Testing Tools (*C++, MFC, COM*)
- 1999 – 2000 **Embedded Systems Engineer**, *Kukla Electronics GmbH*.  
Hardware/Software Engineer Embedded Systems (*C, C++*)

## Teaching

- 2016 – 2019 **The Swift Programming Language**, *FH Hagenberg*.
- 2008 **Applied Java Technologies**, *FH Hagenberg*.
- 2006 – 2007 **Programming C# / Microsoft .NET 2.0**, *FH Hagenberg*.
- 2006 **Introduction to Windows CE Programming**, *FH Hagenberg*.
- 2005 **Introduction to Pocket PC Programming**, *FH Hagenberg*.
- 2004 **Introduction to Web Technologies**, *FH Hagenberg*.

## Certifications

- 2008 **JBoss Enterprise Middleware Expert**, *Red Hat Europe Ltd., UK*.
- 2007 **Certified JBoss Administrator**, *Red Hat Europe Ltd., UK*.
- 2007 **Scrum Certified Product Owner**, *ScrumAlliance Inc., US*.
- 2007 **Certified JBoss Developer**, *Red Hat Europe Ltd., UK*.
- 2006 **Certified ScrumMaster**, *ScrumAlliance Inc., USA*.

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## Selected Personal Projects

### 2015 – 2021 **Compositor, a WYSIWYG $\text{\LaTeX}$ for Mac.**

$\text{\LaTeX}$  is a high-quality typesetting system designed for the production of technical and scientific documentation. Compositor is a  $\text{\LaTeX}$  editor, but with a special twist: it typesets and renders the current page on each keystroke, making it a true WYSIWYG  $\text{\LaTeX}$  document editor. The main challenge in the development of Compositor was modifying the underlying  $\text{\TeX}$  document compiler in a way so that it would be capable of typesetting the current page in mere milliseconds, instead of having to compile the entire document (which usually takes many seconds).

🔗 <https://compositorapp.com>

🐦 <https://twitter.com/compositorapp>

### 2014 – 2015 **Computable, an IPython system for iPad.**

IPython is an open source computing environment for scientific computation. Computable brings IPython to the iPad, a platform which IPython was not designed to run on. The development of Computable posed several challenges: porting the IPython system from a multi-process, single-threaded runtime environment into iOS's single-process, multi-threaded app runtime environment, for example. Also, porting the entire SciPi stack to iOS was quite a task. Computable is now discontinued, the source code is public on github.

Presentation slides of a talk I gave in 2014: "*The Computable Story*"

🔗 [https://compositorapp.com/computable/index\\_old.html](https://compositorapp.com/computable/index_old.html)

🐦 <https://twitter.com/computableapp>

🔗 <https://github.com/ktraunmueller/Computable>

### 2002 **Cyan, a software rendering Web 3D engine.**

Cyan is a software rendering 3D engine written in Java that runs as an Applet in a Web browser. It offers interactive, real-time 3D graphics for the Web, without relying on hardware acceleration.

🔗 <https://github.com/ktraunmueller/cyan>