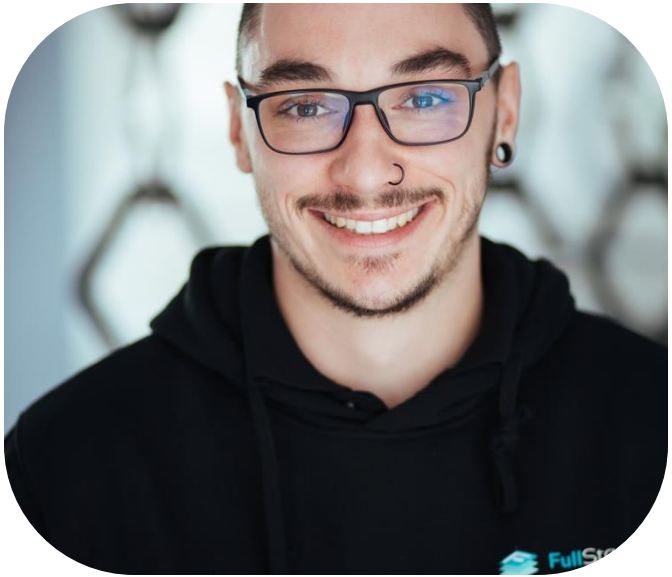


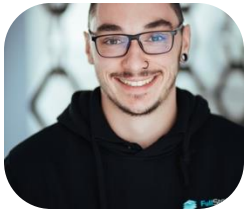
Daniel Drack
/in/drackthor
daniel@drackthor.me

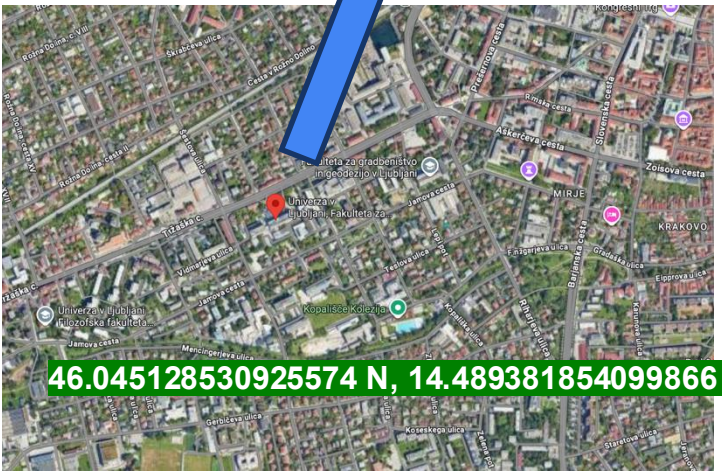
Senior DevOps Engineer
@ FullStackS

Organizer / Host
CNCG Graz + CND Austria

I ❤️ 👩‍♀️ 🐱 🏋️ 🍺 🎸 🤘

BSc MA MBA
Kubestronaut, TFA, VA, GitLab, Scrum, Snyk, Exoscale





Saturday, September 13th
~9.45AM

Let's discuss the big question..

HOW DID WE GET HERE?

… tech wise

… and what did we listen to? 🎵

FullStackS
SOLUTION BRINGER

CLOUD NATIVE AUSTRIA

CLOUD NATIVE COMPUTING GRAZ

A brief history of Cloud Native

CLOUD NATIVE COMPUTING FOUNDATION
SILVER MEMBER

Kubernetes CERTIFIED

Diamond Partner

CISCO Partner

snyk

GitLab SELECT CHANNEL PARTNER

VEEAM Value-Added Reseller Registered

aws PARTNER

splunk> a CISCO company

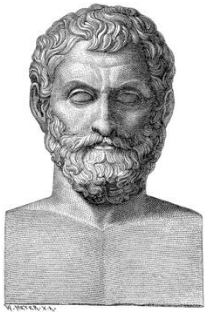
EXOSCALE Partner

Disclaimer..

If I missed your favourite pet, I'm sorry

Thales of Miletus (~625 – 545 BC) is one of the first western philosophers to use **deductive reasoning**.

“he invented math” 😅



~600BC

🎵 TBD

1911

„Some of these days“
– Sophie Tucker

IBM was founded in 1911 as the Computing-Tabulating-Recording Company (CTR), a holding company of manufacturers of record-keeping and measuring systems.

Quelle:
By IBM - http://www-03.ibm.com/ibm/history/exhibits/logo/images/920903.jpghttp://www-03.ibm.com/ibm/history/exhibits/logo/logo_4.html, Public Domain, https://commons.wikimedia.org/w/index.php?curid=88201184
By Wilhelm Meyer - own scan, Public Domain, https://commons.wikimedia.org/w/index.php?curid=11037570

The **University of Ljubljana** is established.
First dean of the faculty of engineering,
Dr. Karel Hinterlechner

1919

1919

First female student enrolled at TU Graz.
(est. 1811 😈)

“The World Is Waiting for the Sunrise”
– Ernest Seitz

„You’d Be Surprised “
– Irving Berlin

Quelle:
https://sl.wikipedia.org/wiki/Karel_Hinterlechner#/media/Slika:Karel_Hinterlechner.jpg

Taiichi Ōno developed the Kanban system at Toyota to increase production efficiency.

„Maybe You'll Be There “
– Gordon Jenkins

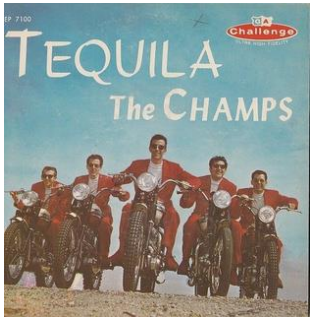
1952

„Blue Tango“
– Leroy Anderson

1940s

Grace Murray Hopper, Ph.D. developed the first compiler called A-0

1957: FORTRAN is developed by IBM
1959: COBOL is developed by Grace Hopper



„Tequila“
– The Champs

1961

„Stand By Me“
– Ben E. King

1950s

John McCarthy (MIT) suggests that computing could be sold as a service (Utility Computing).

Quelle:
By Challenge - https://www.discogs.com/The-Champs-Tequila/release/3400008, Fair use, https://en.wikipedia.org/w/index.php?curid=65164438
Von "null0" - https://www.flickr.com/photos/null0/272015955/, CC BY-SA 2.0, https://commons.wikimedia.org/w/index.php?curid=1297606

Virtualization technology emerged in 1964 with IBM's CP-40, a time-sharing research project for the IBM **System/360**. CP-40 evolved into CP-67 one of the first multi-user, time-sharing operating systems.

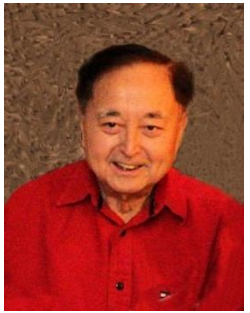
1964

“Do Wah Diddy Diddy”
- Manfred Mann

1965

“Satisfaction”
- The Rolling Stones

Sister Mary Kenneth Keller and Irving C. Tang receive the first (US) CS doctorate degrees on June 7th



Quelle:
https://de.wikipedia.org/wiki/IBM_System/360#/media/File:IBM_System_360_model_30_profile.agr.jpg

Woodstock Music & Art Fair 1969 takes place in Bethel, New York.

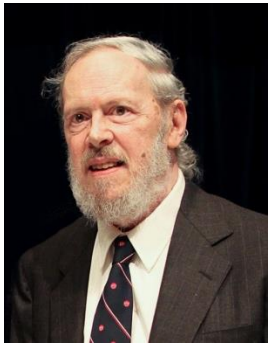
1969

“Sugar, Sugar” - The Archies

1972

“School's Out” - Alice Cooper

Dennis Ritchie develops the C programming language at Bell Laboratories (AT&T).



Quelle:
Von Denise Panyik-Dale - https://www.flickr.com/photos/dpanyikdale/5740011186/, CC BY 2.0, https://commons.wikimedia.org/w/index.php?curid=20276654

IBM releases VM/370 operating system for mainframes - the first "real" VMs.

„Superstition“
– Stevie Wonder

1975
1976

“Dancing Queen”
- ABBA

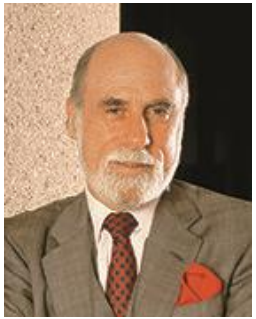
1972

Microsoft: Bill Gates and Paul Allen on April 4th.

Apple: Steve Jobs, Steve Wozniak, and Ronald Wayne on April 1st

Quelle:
https://www.youtube.com/watch?v=x7QASnNVH0w
By Rob Janoff - https://wiki.reactivemicro.com/images/e/e3/Apple_Spectrum_Colors_1993.pdf, Public Domain, https://commons.wikimedia.org/w/index.php?curid=10326626
https://www.ndtv.com/world-news/what-we-can-learn-from-the-guy-who-sold-apple-in-1976-1396074
By Microsoft - Simon Daniels - https://logovector.net/tag/microsoft, Public Domain, https://commons.wikimedia.org/w/index.php?curid=116070343

Work on TCP/IP began.



Bee Gees

1983

”Sharp Dressed Man" – ZZ Top

1973-78

“Flag Day” TCP/IP officially replaced ARPANET.
The internet is born

Quelle:
Von Veni Markovski - Eigenes Werk, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=26207416
https://engineering.stanford.edu/about/history/heroes/2011-heroes/vint-cerf

Intel releases the 16-bit microprocessor 8086, establishing the x86 architecture.

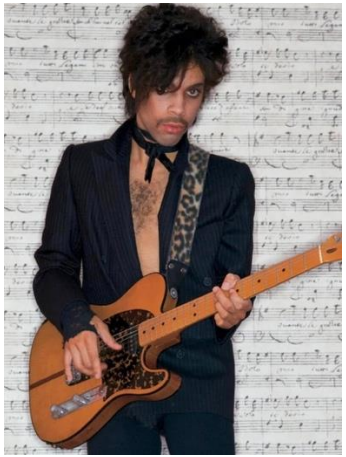
1978

Bee Gees

1984

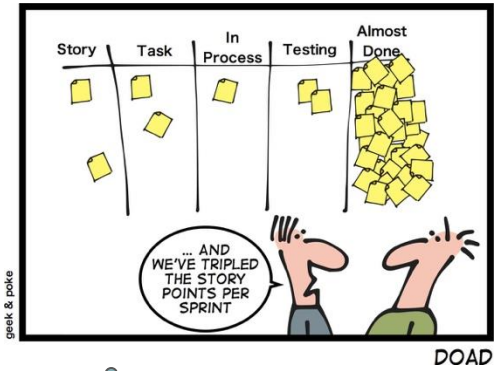
"When Doves Cry" – Prince

Sun Microsystems develops **NFS**, a protocol for accessing files over a network.



Quelle:
Von Konstantin Lanzet - CPU collection Konstantin Lanzet, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=6589708
By Allen Beaulieu; Distributed by Warner Bros. Records. - Worthpoint, archive, Hi-ResColor: [5], Public Domain, https://commons.wikimedia.org/w/index.php?curid=162884167

Hirotaka Takeuchi and Ikujiro Nonaka describe the Scrum concept for product development in an article in the Harvard Business Review.



„Master of Puppets“ - Metallica

1988

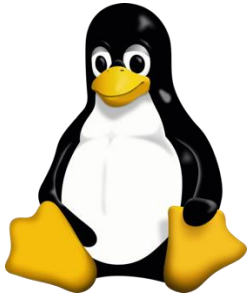
"Sweet Child o' Mine" – Guns N' Roses

1986

Development of the **Fibre Channel Protocol** started in **1988**. The first draft of the standard was completed in 1989. ANSI approved the Fibre Channel standard in **1994**.

Quelle:
https://www.scrum.org/forum/scrum-forum/14106/scrum-joke
https://imgur.com/guns-n-roses-1988-jUXmDSr

The first release of the Linux kernel, version 0.01, was distributed in 1991. While the first official release was announced on October 5, 1991, with version 0.02.



"Everything I Do" – Bryan Adams

1991

1991

„Joyride“ - Roxette

On August 6, 1991, Tim Berners-Lee posted on the public alt.hypertext newsgroup. This is now considered to be the official start of the World Wide Web as a public project.

Quelle:
By Larry Ewing, Simon Budig, Garrett LeSage - https://isc.tamu.edu/~lewing/linux/, http://www.home.unix-ag.org/simon/penguin/, garrett/Tux on GitHub, CC0, https://commons.wikimedia.org/w/index.php?curid=753970
Von Lf Asia - Imported from 500px (archived version) by the Archive Team. (detail page), CC BY 3.0, https://commons.wikimedia.org/w/index.php?curid=108824226
Von Paul Clarke - Eigenes Werk, CC BY-SA 4.0, https://commons.wikimedia.org/w/index.php?curid=37435469

The first website for banking services was launched by Stanford Credit Union in 1994.

"I Swear"
– All-4-One

1995

“Gangsta‘s Paradise“
- Coolio

1994

eBay was established as AuctionWeb in California on September 3, 1995, by French-born Iranian-American computer programmer Pierre Omidyar.

Quelle:
https://www.logodesign.org/the-complete-history-of-the-ebay-logo/

Ken Schwaber and Jeff Sutherland present a paper on "The SCRUM Development Process" at OOPSLA.

”Bombastic" – Shaggy

1995

1995

„Always“ - Bon Jovi

Sun Microsystems released Java.

Quelle:
https://www.scrum.org/resources/blog/scrum-guide-update-ken-schwaber-and-jeff-sutherland
https://logos-world.net/java-logo/

Larry Page and Sergey Brin founded Google Inc. on September 4.

„Suggestions“
- System of a Down

1999

„Livin' la Vida Loca“
– Ricky Martin

1998

Salesforce.com is considered the pioneering “Software as a Service” (SaaS) first company.

Quelle:
https://www.reddit.com/r/business/comments/dfjib4/salesforce_in_1999_you_dont_have_to_have_it_all/

VMware releases the first x86 hypervisor for virtualization. 2001 the first server hypervisor product is launched.

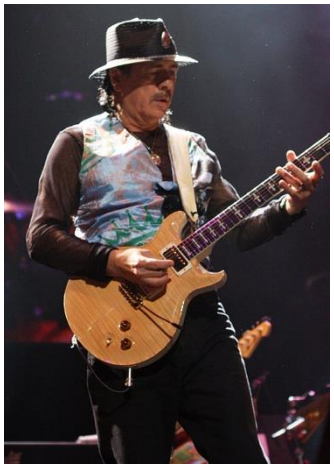
1999

“I want it that way” - Backstreet Boys

2000

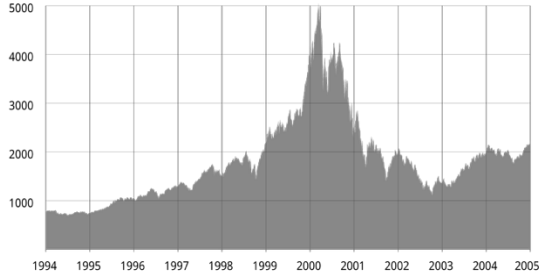
„Smooth“ / „Maria Maria“ - Santana

The iSCSI protocol draft was submitted to the IETF by IBM and ratified in 2003.



Quelle:
http://upload.wikimedia.org/wikipedia/commons/thumb/2/23/VMware-Logo-1998.png
Von Eva Rinaldi - Flickr, CC BY-SA 2.0, https://commons.wikimedia.org/w/index.php?curid=80232505

The dot-com bubble was a speculative bubble that focused on the stock market of internet companies, in the late 1990s. It reached its peak in March 2000 before bursting and leading to significant losses for investors.



„Higher“
- Creed

2001

”Fallin"
– Alicia Keys

2000

17 software developers meet at Snowbird resort in Utah to formulate the Agile Manifesto, establishing agile principles for software development.

Quelle:
https://www.sek.com/history-some-pictures-and-pdfs-of-the-agile-manifesto-meeting-on-2001-a33c40bcc2b
By Lalala666 at English Wikipedia - Transferred from en.wikipedia to Commons. Transfer was stated to be made by Ddxc., Public Domain, https://commons.wikimedia.org/w/index.php?curid=3189816

Linus Torvalds developed Git as a distributed version control system for the Linux kernel.

2005

”Candy Shop"
– 50 cent

2006

„Crazy“
– Gnarls Barkley

amazon web services

AWS officially launches its first two services: Amazon S3 (Simple Storage Service) and Amazon EC2 (Elastic Compute Cloud)

Quelle:
https://www.reddit.com/r/ProgrammerHumor/comments/11trqru/now_lets_start_the_weekend/

KVM (Kernel-based Virtual Machine), lead by Avi Kivity, integrated into the Linux Kernel.

„Umbrella“
– Rihanna feat. Jay-Z

2008

"Viva La Vida”
– Coldplay

2007

Linux Kernel 2.6.24 introduces cgrou
namespaces.

Quelle:
https://qconsf.com/sf2016/sf2016/users/avi-kivity.html
Von Wonker Wonker from London, United Kingdom - Coldplay, CC BY 2.0, https://commons.wikimedia.org/w/index.php?curid=4358511

GitHub was founded as a platform for Git repositories by Tom Preston-Werner, Chris Wanstrath, P. J. Hyett, and Scott Chacon.

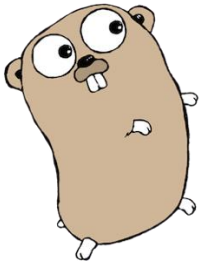
github
SOCIAL CODING

"Single Ladies"
– Beyoncé

2009

„Poker Face“
– Lady Gaga

2008



Google releases the programming language Go.

Quelle:
https://go.dev/blog/gopher

The development of the open RISC-V architecture begins at the University of California, Berkeley.

"Rolling in the Deep" – Adele

2010

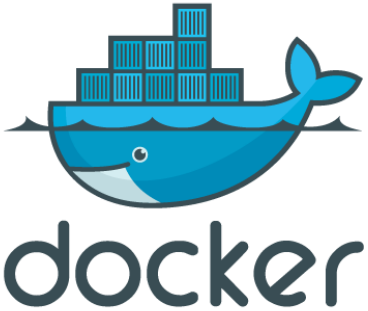
2010

„Hey, Soul Sister“ - Train

NASA and Rackspace launch OpenStack as a free cloud platform.

Quelle:

Docker enables the standardized deployment of software via containers.



„Can‘t Hold Us“
- Macklemore

2014

„The Monster“
- Eminem & Rihanna

2013

Google releases Kubernetes.

Quelle:

The **first DevOps Days Ljubljana**
take place on April 4-5th @ City Hotel LJ

DEVOPS DAYS LJUBLJANA

„Something from Nothing“
- Foo Fighters

2014

2014

„Edge of Revolution“
- Nickelback

Swift

Apple releases the Swift programming language in September of 2014.

Quelle:

Extended Berkeley Packet Filter (eBPF) is integrated into the Linux kernel.

eBPF

”All of me"
– John Legend

2015

„Take me to Church“
– Hozier

2014

CLOUD NATIVE
COMPUTING FOUNDATION

Founding of the Cloud Native Computing Foundation (CNCF).

Quelle:

First KubeCon takes place in November in San Francisco.

Tickets

Prices in USD

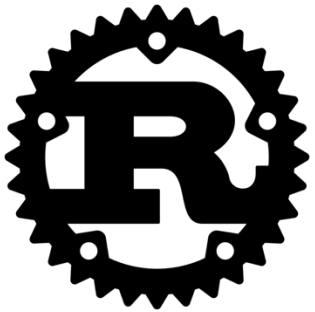
Super Early Bird This is a special offer for the first 100 tickets sold! Act fast!	$350	EXPIRED
Early Bird	$400	EXPIRED

2015

„That‘s the spirit“ - Bring me the Horizon

2015

„Can‘t feel my face“ - The Weeknd



Mozilla releases the programming language Rust

Quelle:
https://ti.to/kubecon/kubecon-2015

Google, IBM & Lyft introduce Istio.

“Help!”
- Papa Roach

2019

„High Hopes“
- Panic! At the Disco

2017

Matthew Skelton and Manuel Pais
publish "Team Topologies”.

Quelle:
https://teamtopologies.com/news-blogs-newsletters/2019/09/17/team-topologies-book-published-paperback-ebook-audiobook

OpenTracing and OpenCensus merge to form OpenTelemetry.

OpenTelemetry

”You’ll never find me" – Korn

2020

„Bad Decisions“ - The Strokes

2019

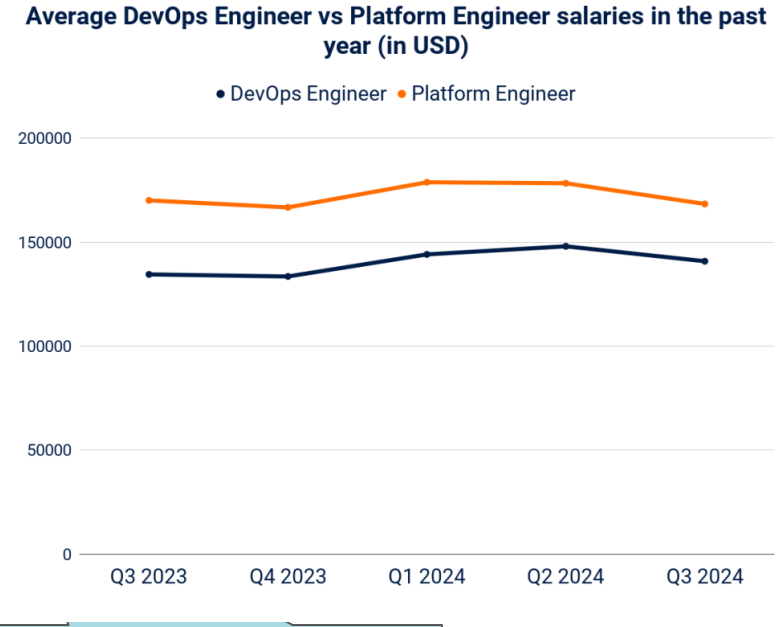
SolarWinds Cyberattack

Quelle:

Platform engineering is establishing.

„Best of Times“
- Godsmack

2023



Broadcom aquires VMWare for $61 billion.

Quelle:
https://investors.broadcom.com/news-releases/news-release-details/broadcom-acquire-vmware-approximately-61-billion-cash-and-stock
https://x.com/luca_cloud/status/1752371943649517588
https://thenewstack.io/kubernetes-job-market-platform-engineers-earn-20-more-than-devops-engineers/

Meta releases Ollama.
.. and AI is everywhere

„Thing in the Cage“
- Lordi

2023

2023

„We didn‘t start the fire“
- Fall Out Boy

First KCD Austria in September 2023.
Cloud Native Austria est. in December 2023.

Quelle:
https://github.com/ollama/ollama

We are here!

DEVOPSDAYS LJUBLJANA 2025

„Welcome to the Circus“
- 5FDP

2025

2025

„Heavy is the Crown“
- Linkin Park

CNDA

Cloud Native Days Austria
7th – 8th October