# CHRISTIAN CZEZATKE

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Software engineering professional with 25 years of experience. (Systems software and modeling of clean energy assets.)

#### PROFESSIONAL EXPERIENCE

## Station A, San Francisco, CA

2019 - Present

### **Principal Software Engineer ("First Hire")**

Station A was founded when NRG's distributed energy optimization team spun off. I was the first employee to get hired.

My work at Station A covers many aspects: I research, design and improve numeric and machine learning models that enable us to assess a million buildings for their clean energy potential. I also work on infrastructure for data ingestion, warehousing and serving up the results of our evaluations, to our SaaS customers as well as participants in the Station A clean energy marketplace.

Maxta Inc., Santa Clara, CA

2012 - 2019

### **Engineering Lead ("Employee #2")**

At Maxta I designed and implemented large parts of a data storage solution for virtual machines and containers. The architecture was distributed in nature, with no central point of control and no single point of failure.

The goal was to build a unified storage pool out of off the shelf servers. The system was self-healing and would automatically compensate for storage device or entire server failures.

VMware Inc., Palo Alto, CA

2003 - 2011

### **Staff Engineer**

As VMware started to penetrate enterprise datacenters, customers realized that conventional data protection approaches did not scale in virtual environments. At that time backup vendors were also unwilling to adapt their products because datacenter virtualization was still fairly new and represented too small a market. Tasked to address the problem, I ended up developing a vendor-agnostic framework for wiring existing backup applications into VMware's infrastructure.

As adoption of virtualization in the datacenter grew, software vendors were eventually willing to adapt their products and the framework turned into a set of APIs around which an entire ecosystem quickly developed that is still thriving today.

Over the years I also made various presentations on this topic at VMworld. I also spent some time working on VMware's VSAN distributed storage project.

Universal Network Machines (aka NetXen), Santa Clara, CA

2002 - 2003

### **Senior Software Engineer**

UNM was a fabless chip company that developed a custom chip design consisting of a large number of simple processing cores with DSP-like capabilities centered around a message-passing architecture.

I developed memory management and scheduling routines for the processor that can be called a simple operating system.

#### **Various**

In my early time in Silicon Valley I worked on first-gen. distributed storage projects at Integratus and Scale8 and on DRM and security related software at Napster.

TBR, xS+S, Austria 1994 – 2000

# Employee #1

During/right after attending college I worked for two small, newly founded engineering firms in Austria. At TBR I was responsible for re-architecting a facility management application deployed in power plants operated by VERBUND Austria Thermal Power AG. As part of this project I also wrote the first version of the ODBC driver for PostgreSQL.

xS+S develops data visualization and environmental monitoring solutions in use by various state government agencies in Germany and Austria. I worked on various open source components, including some Linux kernel bug fixes.

#### **EDUCATION**

TU Wien (Vienna University of Technology), Vienna, Austria

1999

- Diplomingenieur, Informatik (M.Sc. Computer Science). Graduated with distinction.
- 4 semesters of Technische Physik (Applied Physics) before switching majors.

Stanford OnlineAndrew Ng. Machine Learning - (<u>Certificate</u>)

deeplearning.ai 2018

• Andrew Ng. Deep Learning Specialization (5 courses) – (Certificate)

#### **ADDITIONAL SKILLS & INTERESTS**

- Native German speaker.
- IT infrastructure maintenance and web design for **Yonaxis IP Law Group**.
- Interest in whole home electrification, heat pumps and decarbonization.
- I occasionally dabble in IoT hardware/software projects.

### **PATENTS**

<u>US7,606,868</u>, Oct. 20, 2009, "Universal file access architecture for heterogeneous computing environment," <u>US7,707,185</u>, Apr. 27, 2010, "Accessing virtual data storage units to offload operations from a computer system hosting a virtual machine to an offload server,"

<u>US7,774,391</u>, Aug. 10, 2010, <u>US8,095,525</u>, Jan. 10, 2012: "Method of universal file access for a heterogeneous computing environment,"

<u>US8,056,076</u>, Nov. 8, 2011, <u>US9,239,731</u>, Jan. 19, 2016, "Method and system for acquiring a quiesceing set of information associated with a virtual machine,"

<u>US8,291,180</u>, Oct. 16, 2012, <u>US8,694,746</u>, Apr. 8, 2014, "Loose synchronization of virtual disks,"

<u>US8,296,759</u>, Oct. 23, 2012, <u>US8,789,049</u>, Jul. 22, 2014, "Offloading operations to a replicate virtual machine," <u>US8,443,166</u>, May 14, 2013, <u>US8,954,665</u>, Feb. 10, 2015, "Method for tracking changes in virtual disks,"

US2017-0116302, Apr. 27, 2017, "Replica Checkpointing Without Quiescing,"

<u>US2017-0242751</u>, Aug. 24, 2017, "Detecting and Correcting Silent Data Corruption in a Distributed Storage System,"

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