

JONNY LANGEFELD

SOFTWARE ENGINEER

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I am a data enthusiast and end-to-end developer of complex, Cloud-Native, global software solutions in an environment of backend engineering, analytics and Big Data. My interdisciplinary skill set reaches from software development to dev-ops to data science and machine learning. In my current role at cruise, I am helping to shape the future by building developer productivity tools, infrastructure as code and automation for the backend of autonomous driving. My previous hands-on experience in global teams with IBM and Mercedes-Benz is built upon numerous projects to build data-driven products, high throughput APIs and collection, storage, preparation and analysis of data to make valuable predictions and support decisions.

EXPERIENCE

cruise, San Francisco, CA, USA

Mar. 2020 – Present

Staff Software Engineer | Jul. 2021 - Present

Senior Software Engineer | Mar. 2020 - Jun. 2021

- Development of developer productivity tools such as the node pool controller, a kubernetes operator that makes immutable fields on node pool resources mutable through rolling upgrades, saving SREs hours of manual work per cluster during node pool upgrades.
- Roll out a policy engine across all 40 clusters at cruise that helps tenants to make their workloads more resilient through enforcing best practices and properties on Kubernetes resources.
- Develop and Rollout unified Kubernetes deployment engine. This allowed cruise to converge multiple systems into one and therefore save on maintenance cost, on-call burden and thousands of lines of code compared to the previous system.
- Build infrastructure as code and automation at scale. Automate Cruise's custom cluster creation process, that took engineers initially one week to execute, through a kubernetes controller that does all the work in a matter of one API call.

Mercedes-Benz Research & Development North America, Sunnyvale, CA, USA

Apr. 2017 – Feb. 2020

Senior Software Engineer

- Development of Daimler's next generation, high throughput data processing engine, that connects with all Mercedes vehicles and allows GDPR and ISO compliant data exchange between vehicles and backend, consisting of multiple containerized micro services written in Go, running on a Kubernetes cluster
- Development of infrastructure as code with terraform in a hybrid environment of managed resources by cloud providers and self-managed components in a Kubernetes cluster deployed with helm to reduce cloud provider costs by 80%.
- Development of an internal testing framework written in Go, that allows scheduling, execution and reporting of end to end tests from vehicle to backend after processing

Senior Data Scientist

- Development of predictive, classification, clustering models; applying machine learning algorithms on Big Data platforms (with Hadoop, Spark, MLlib, Hive); statistical root cause analysis; data platform project management

energy-smart, Berlin, GERMANY

Nov. 2016 – Oct. 2017

CIO & Co-Founder

- Development of a data platform to serve landlords of larger real estate management firms to track utility usage and deliver utility invoices automatically.
- Responsible for the software development; built a dockerized platform which is able to collect, store and visualize data with a stack of mysql, phpmyadmin, metabase, an sftp server, proprietary software written in Python and a web user interface to manage properties, tenants and connected devices.

IBM, Stuttgart, GERMANY

Oct. 2014 – Mar. 2017

Senior Consultant for Business Analytics | Jan. 2017 - Mar. 2017

Consultant for Business Analytics | Oct. 2017 - Dec. 2016

- Consulting for predictive analytics and business intelligence software (SPSS); development of data-driven software using machine learning algorithms and data mining (pandas, numpy, scikit learn, pyspark, flask, tensorflow).
- Statistical software training for clients; speaker on pre-sales events.

EDUCATION

Bachelor of Science, Business Information Systems

Oct. 2011 – Sep. 2014

DHBW Stuttgart Cooperative State University, Stuttgart, GERMANY

- Co-op study program with IBM consisting of three-month periods of theoretical and practical phases in a continuous exchange. This was the best way to gain a theoretical knowledge foundation and considerable practical business experience at the same time.
- Internships as junior consultant, java developer, strategy consultant and social media campaign researcher

SKILLS

Experience

- Main programming languages are Python and Go; Sufficient in others (Java, Typescript, R)
- Cloud-Native, Docker, Kubernetes, Helm
- Kubernetes Operators
- Bash, Git, Terraform
- Web development (HTML5, CSS3, JavaScript, PHP)
- Data management (SQL, PostgreSQL, MySQL, MongoDB, phpMyAdmin, IBM DB2, Oracle, Microsoft SQL)
- Predictive analytics (pandas, scipy, IBM SPSS)
- Data science, data mining, machine Learning (CRISP-DM, Chaid, C5.0, Neural Networks, logistic regression, et al.)
- Certified SCRUM Master and Product Owner
- Microsoft Azure, Google Cloud Platform, Mac OS, Linux

Voluntary Activities

- Web administration for a church website
- Video tutorials on Youtube (Docker, Kubernetes...)
- Personal blog
- Open-source software
- Self-paced learning on udacity (Deep Learning, k8s)
- Developing custom nodes for SPSS Modeler

Qualities

- Entrepreneurial mindset
- Self-directed and passionate
- Leadership and integrity
- Great communicator
- Reasonable decision making