

Contact

julien@bisconti.cloud

www.linkedin.com/in/julienbisconti

(LinkedIn)

bisconti.cloud/ (Personal)

developers.google.com/community/experts/directory/profile/profile-julien-bisconti (Other)

(Other)

www.youtube.com/playlist (Other)

(Other)

Top Skills

Site Reliability Engineering

Kubernetes

Google Cloud Platform (GCP)

Languages

French (Native or Bilingual)

Swedish (Elementary)

English (Native or Bilingual)

Certifications

CKAD - Certified Kubernetes

Application Developer

Google Developer Expert for Google

Cloud Platform

CKA - Certified Kubernetes

Administrator

Google Cloud Professional Data

Engineer

Publications

Monorepo vs many repos

Julien Bisconti

Data Engineer | Site Reliability Engineer | GDE for Google Cloud |
currently at Spotify

Stockholm Metropolitan Area

Summary

Provide technical expertise to CEO/CTO/startups for strategic advantage.

Mentor at Google for Startups <https://startup.google.com/>

Help companies to scale by automation and data driven decisions.

<https://bisconti.cloud>

Software engineer, conference speaker, Google developer expert (GDE) for GCP, certified Kubernetes CKA/CKAD, Google Professional Data Engineer, university guest lecturer.

Master in Computer Science (graduated 2007).

Serverless first mindset, data operation and data engineering.

Used many programming languages: JavaScript (Node.js + browser), Go, Java, Python, Bash, Clojure, ClojureScript, Dart, Rust and Haskell. Fast learner.

Like building scalable distributed systems.

Design, architect, develop, deploy, operate and maintain software.

Achievements: KubeCon 18' Seattle speaker, University guest lecturer, open source contributor.

Can work remotely (good writing communication skill).

Experience

Spotify

Site Reliability Engineer - Data infrastructure

March 2021 - Present (10 months)

Stockholm, Stockholm County, Sweden

Building data processing platform on Google Cloud.

KTH Royal Institute of Technology

Guest Lecturer

April 2019 - Present (2 years 9 months)

Stockholm, Sweden

Guest lecturer for KTH DevOps course

Topics:

- containers (Docker, CRI)
- orchestration (Kubernetes, swarm)
- serverless & FaaS

Embark Studios

Infrastructure Engineer for Machine Learning

August 2020 - March 2021 (8 months)

Stockholm County, Sweden

Infrastructure Management for Machine Learning on Google Cloud

Managing kubernetes (GKE) clusters with GPUs, NFS drives (FileStore) for storage

Service mesh: Istio.

Infrastructure as code: Terraform.

Full stack development: Svelte, Javascript, Kubernetes CRDs in Go, REST API with Flask in Python.

Monorepo with Bazel.

Writing development tools and utilities in Go and Python.

Monitoring with Grafana and Prometheus.

ML Framework: TensorFlow

Presentation/workshop about Docker container, Kubernetes and KubeFlow

Responsibilities includes cost management, performances optimization, site reliability and observability.

Building new ML platform and data processing pipeline: Kubernetes, Tekton, Cloud Spanner and Go.

NetEnt

Site Reliability Engineer

April 2019 - May 2020 (1 year 2 months)

Stockholm, Sweden

Cloud migration from OpenShift to Kubernetes on Google Cloud Platform (GCP).

Complete CI/CD pipeline migration from Bitbucket/Jenkins to GitHub/CloudBuild and deployment to Kubernetes for Java (Maven), JavaScript (npm), Python (pip) and Go.

Infrastructure visibility and security with Forseti and Cloud Functions (JavaScript).

Infrastructure as code management with Terraform, Terragrunt and Atlantis.

Containerization of legacy python applications.

Automation of dependency upgrades.

Securely rotating secrets and credentials used in application code with KMS and Berglas.

Using binary authorisation in Kubernetes to certify deployment in highly regulated environment.

Security and regulation: complete traceability with audit logs from code (GitHub) to production (GKE) using serverless architecture.

Using Cloud Functions to query GitHub using GraphQL API, storing the data in BigQuery and displaying the results in Data Studio.

Data cleaning and data lifecycle using Cloud Functions, PubSub and BigQuery scheduled query for costs management and monitoring data.

Data mining GitHub organisation to provide relevant KPI in order to make data driven decisions.

Frontend development for backoffice API in Typescript/Angular9

Presentations and workshop dedicated to Terraform, Kubernetes, Go, serverless, service mesh and site reliability engineering.

56K.Cloud

Site Reliability Engineer

November 2018 - March 2019 (5 months)

Zurich, Switzerland

Building infrastructure in the cloud and on premise with Terraform, Terragrunt, Bash, Go and Python

Main cloud providers: AWS, GCP, Azure.

Architecting cloud migration from on premises to cloud providers.

Containerizing application

Setting up kubernetes clusters

Giving workshops

Presenting and teaching DevOps and Chaos Engineering.

Discovery Inc

Software Engineer (consultant)

March 2018 - November 2018 (9 months)

Stockholm, Sweden

cloud native, containerized environment.

> Dev Tools

Bash scripting, containerization w/ Docker(-compose). Setting npm cache for build pipeline on Jenkins.

> CMS-UI

Single Page App for editors to manage content for the website of <https://www.dplay.se/>

Built with React + Redux, react-router v4, lodash, Immutable.js, SaSS, testing with Jest, enzyme, mocha, chai, sinon.

> CMS

Implementing new features on performance critical microservice written in Java 8 using Redis cluster with Sentinel which was migrated to PostgreSQL.

ElasticSearch for indexing and full text search, using VertX for service to service communication, migrating to gRPC.

Testing with Rest-assured and JUnit.

Using Agile and TDD with code review via pull request on Github.

Using containers, testing & deploying with Jenkins to Kubernetes cluster running on AWS

Logs gather with ELK stack. Metrics with Prometheus.

Unity Technologies Finland

Software Engineer

January 2017 - March 2018 (1 year 3 months)

Helsinki Area, Finland

cloud native, containerized environment

> Developer Environment compose

DevOps tool used by developers to reproduce production environment locally.

Generate dynamically services configuration file. Based on docker and docker-compose, written in Python 3 and rewritten in Javascript (Node.js).

> CI pipeline with Gitlab for Go project

Build & test Go projects in container. Provide template for other projects.

> Ads delivery cross promotion

Performance critical scalable microservices in Go. Using Redis as a cache.

Using Nats to receive data from other microservices, Kafka to store all events related to the ads to a data pipeline and gRPC for request-reply to other

services. These events are processed from Kafka and then stored on S3 for analytics and data mining. Service is used to select the best potential

advertisement campaign for every ad request. Handling tens of thousands of events per seconds. Deployed in Docker container with HELM on a kubernetes

cluster running on AWS. Highly tested microservices with code coverage > 90% and code review on everything.

> Coordinator

Library written in Go implementing the Bully algorithm to elect leader among instances over Nats.

> Advertiser campaigns

Microservices written in Node.js. Using event driven architecture with Nats as message broker for distributed system. Uploading video / pictures to S3. Using MongoDB (NoSQL) and express. ES6+ with > 90% test coverage with Mocha, Chai, Sinon. Continuous delivery (github + jenkins CI). Deployed in Docker container with HELM on a kubernetes cluster running on AWS.

> Advertiser self-serve

Single Page Application using React.js + Redux, React router, ES6+, Sass with BAM, Material UI, webpack. Component based architecture. Server side rendered. With > 90% test coverage with Mocha, Chai, Sinon. Continuous delivery (github + jenkins CI).

> Technical recruiter: Part of the recruitment process, review technical tests, conduct interview.

> Give presentations to teams (see link below)

Freelance

Software Engineer

August 2016 - December 2016 (5 months)

Chiand Mai, Thailand

Full stack web development in Clojure and ClojureScript using PostgreSQL as database. Part of the project can be found on my github account <https://github.com/veggiemonk/guestbook>.

Group S - partenaire RH

Software Engineer

May 2014 - August 2016 (2 years 4 months)

Brussels Area, Belgium

> Transfer

Analysis, development, maintenance, support of Single Page Application (Redux + React, ES6+, JSX, SaSS, Mocha, Chai, Sinon, Localization: EN, FR,

NL) and backend (Java 8, Tomcat 8, JAX-RS, Hibernate, JUNIT) connecting to Oracle 11g, MySQL, cache (Redis) and a secure FTP server (proprietary) containing sensitive documents (accounting, payroll, salary, ...). In front of load balancing running on RHEL 7. +1000 downloads/day for 3000 customers in Belgium and France.

> Portal

Analysis, development, maintenance, support of Single Page Application (vanilla JS, CSS, Sass, HTML, Mobile website, Localization: EN, FR, NL) acting as Single Sign On web app for 20+ web apps with users in 8 different Oracle, Active Directory, MySQL and a FTP server (see: Transfer) in Belgium and in France. Backend written with Java 8, Tomcat 8, JAX-RS, Hibernate, JUNIT. In front of load balancing running on RHEL 7. <https://online.groups.be/>

> 2FA

Single Page App (JavaScript (jQuery), CSS, HTML, Mobile) and a backend (Java 8, JAX-RS, Hibernate, Swagger, Apache, RHEL). Implemented 2 factor Authentication to secure user accounts by adding extra security measure to customers with higher access credentials (sensitive data, salary, accounting, ...). Users must provide a login/password + 6 digits code (changing every 30 seconds) to connect to Portal (see project Portal above). The code is generated on their smartphones (iOS, Android, Microsoft) by a mobile application.

> Translation

Analysis, development, maintenance, support of Single Page Application (Redux + React, ES6+, JSX, SaSS, Mocha, Chai, Sinon, Localization: EN, FR, NL) and backend (Java 8, Tomcat 8, JAX-RS, Hibernate, JUNIT). Internal project meant to be the intersection application between documentation and the internationalization (i18n) of all customer facing application.

Group S - HR partner

Service Delivery Engineer

May 2014 - August 2016 (2 years 4 months)

> CI/CD pipeline

Migration from gitosis to gitolite to GitLab in 2 years time with 100+ repository. Running Gitlab and Gitlab CI inside Docker containers (multi servers). Configuring Jenkins (for Java) and Gitlab CI (for Node.js, JavaScript). Preaching the benefits of writing tests made this possible.

> Buildman

Node.js server allowing every team members (technical or not) to build and deploy any applications (web app or java server, version or branch) in one click. This tool also has self-update and can update other internal tools.

The challenge was to configure user access on RedHat Linux with SELinux.

Technology Stack: Node.js, Express, git, grunt, terminal.js, SonarQube, RedHat Linux, SSH, BASH.

> Analytics

Setup monitoring/alerting ELK. Elasticsearch (search), Logstash (gather logs), Kibana (visualization), Golang (mail client). Gather logs and statistics from web applications and servers + alerting developers (email only) when a customer has an error.

> Presentation

Teaching web technologies, agile methodology, unit testing, integration tests and e2e tests to others developers.

Presentation to team leaders of git based workflow, merge requests (GitLab), dependency management (Nexus), continuous integration (Jenkins, GitLab CI + Docker), issue tracker (Redmine, GitLab), wiki (MediaWiki, GitLab).

> Code quality check

Install and configure SonarQube (running inside Docker containers) for code quality and technical debt tracking.

> Writing reports

Conferences, meetings, projects requirements analysis. Example of conference report: <https://docs.google.com/document/d/1ahblUs2BalyEdtQamSX7O9XwRi1GiOZQ4W-G48CooLo/edit?usp=sharing>

Share2Grow

Partner

February 2014 - July 2016 (2 years 6 months)

Brussels Area, Belgium

Remote work with developers.

Developing web and mobile solutions cross platform with phonegap and GWT.

Server operations and maintenance Windows & Ubuntu. Setup Git server management

Full stack developer Java/JavaScript.

Web Development, Technology Assessment, Technical Business Analysis, SEO, Python programming, mobile application development, GoogleWebToolkit GWT, Node.js/Express, GIT server on Windows.

Freelance

Software Engineer

2010 - May 2014 (4 years)

world wide

Web Development, Technology Assessment, Technical Business Analysis, SEO, Python programming, mobile application development, GoogleWebToolkit GWT, Node.js/Express, MongoDB, Django, Plone, ...

Piton Lux S.A.

Software Engineer

April 2008 - October 2009 (1 year 7 months)

Development of custom/tailor-made solutions with CRM Software "eLink" at University of Luxembourg.

- Javascript: jquery, mootools
- HTML and CSS
- SQL (Oracle [PL/SQL], Microsoft SQL Server)
- Virtualization: VirtualBox
- Software Versioning: Subversion (svn)
- IIS, COM+

Callataÿ & Wouters

Release Engineer

October 2007 - March 2008 (6 months)

Brussels Area, Belgium

Worked in team for the release of Banking Software "Thales". Now called "Sopra Banking Software".

Universitat Politècnica de Catalunya

Researcher

September 2006 - February 2007 (6 months)

Barcelona Area, Spain

Research over the MPLS protocol:

Multiprotocol Label Switching (MPLS) is a type of data-carrying technique for high-performance telecommunications networks. MPLS is a scalable,

protocol-independent transport. In an MPLS network, data packets are assigned labels. Packet-forwarding decisions are made solely on the contents of this label, without the need to examine the packet itself. This allows one to create end-to-end circuits across any type of transport medium, using any protocol. The primary benefit is to eliminate dependence on a particular OSI model data link layer (layer 2) technology,

Thesis "Dynamic Configuration of Label Switched Path" under the supervision of M. F. Casadevall.

- Linux Kernel Module development in C with mpls-linux (<https://sourceforge.net/projects/mpls-linux/#>)
- Advanced Bash scripting
- Advanced Networking in Linux Kernel with QoS and various queue model (such as Weighted Fair Queuing)
- Network load testing with tc (traffic control command), iptables, quagga, tcpdump.
- Virtualization of Network with Linux Containers (Netkit <http://wiki.netkit.org>) with LXC

Education

Université de Namur

Master of Science (MSc), Computer Science · (2004 - 2007)

Université de Namur

Bachelor of Science - BS, Computer Science · (2002 - 2005)