

# Bogdan Despotov

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## EXPERIENCE

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### Cognyte

*Machine Learning Engineer*

Bulgaria (remote)

Mar. 2022 - Apr. 2023

- **Ownership:** Responsible for all ML components: bug fixing, performance improvement, troubleshooting.
- **Productionize:** Put to production as microservices ML models developed internally. Stack: Kubernetes, Helm, Flask, BentoML, GCP.
- **Research:** Create PoCs for prospect client by fine-tuning state of the art ML models: YOLO, Whisper, easyOCR.
- **Design:** Create high level designs for components that interact with the ML microservices, present to development teams and support their implementation efforts.

### CloudSigma

*Software Engineer*

Sofia, Bulgaria (hybrid)

Mar. 2016 - Mar. 2022

- **Develop:** Worked on a proprietary cloud stack leveraging KVM, QEMU for virtualization. Included a customer facing API serving hundreds of thousands of requests daily. Leveraging a Python tech stack including: Django, Celery, Tastypie, unittest, Flask and more.
- **Implementations:** Successfully implemented a number of new features including support for Intel SGX, GPUs, VMWare virtualization, SAML authentication. Helped reduce technical debt by refactoring legacy code, improving test coverage and transitioning from Python 2 to Python 3.
- **EC projects:** Lead the technical involvement of the company in several project within the Horizon2020 and RISE frameworks. Efforts include software development, documentation and project management.

### Hostway Corporation

*Server support and administration, NOC monitoring*

Sofia, Bulgaria

Nov. 2011 - Jan. 2013

- **Administration:** Within the product line of fully managed Linux and Windows servers.
- **NOC:** Monitoring the global company network and servers and fixing issues as they arise.

## EDUCATION

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### Sofia University "Kliment Ohridski"

*Philosophy; Did not graduate*

Sofia, Bulgaria

Sept. 2014 - Sept. 2018

## PROJECTS

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### DITAS

*Data-intensive applications Improvement by moving data and compute in cloud*

Work package leader

### COLA

*Cloud Orchestration at the Level of Application*

Work package leader

## SecureCloud

*Secure Big Data Processing in Untrusted Clouds*

*Part of consortium*

- **Publication Co-Author:** Secure and Scalable Key Value Storage for Managing Big Data in Smart Cities using Intel SGX.

## SecInCore

*Secure Dynamic Cloud based on Pan-European Disaster Inventory*

*Part of consortium*

- **Publication Co-Author:** Cloud-based semantic services for pan-European emergency preparation and planning

## SEO-DWARF

*Semantic EO Data Web Alert and Retrieval Framework*

*Part of consortium*

## HOBBY PROJECTS

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### Logtrucks

Code

*Logging trucks and license plates detection in the wild.*

- **Dataset:** Dataset of logs on trucks and Bulgarian license plates.
- **Purpose:** To detect logging trucks and their license plates in the wild.
- **Method:** Fine-tuned YOLOv7 and easyOCR on the datasets.

### Bulgarian news comments dataset.

Code

*Application to extract comments from a news site and build them into a dataset.*

- **Dataset:** Dataset of 500k comments on a news site in Bulgarian.
- **Purpose:** Fine-tune LLaMa on the dataset mostly for comic effect.