Kristian T Krastev

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Experience

2024 - CINETRONIC llc - Varna, Bulgaria

Self-employed: *Software & Web development, Video filming & post-production, 3D modelling*

2021 - 2023 IDENTRICS - Sofia, Bulgaria

Software Architect: *Microservices architecture for NLP/LLMs and Computer Vision applications*

2018 - 2021 IDENTRICS - Hybrid / Sofia, Bulgaria

Machine Learning Software Engineer: *NLP models training and inference service integration*

2016 - 2018 BROADCOM (prev.: ASIC Depot) - Varna, Bulgaria

R&D Software Engineer: *VLSI Design verification and embedded SDK development*

2016 UNIVERSITY OF BRISTOL - Department of Computer Science - Bristol, UK

Summer Intern: *Computational Neuroscience and Information-theoretic research*

2015 ZMDI/IDT (now: Renesas Design Bulgaria) - Varna, Bulgaria

Summer Intern: *Embedded firmware development*

Education

2019 - 2020 SOFIA UNIVERSITY - MSc Probability and Statistics (Faculty of Mathematics & Informatics)

Intermitted

2012 - 2016 UNIVERSITY OF BRISTOL - BSc Computer Science

Bachelor of Science with Second Class Honours (First Division)

Key subjects:

- Machine Learning
- Computational Neuroscience
- Signals, Processes & Systems
- Data Structures & Algorithms
- Theory of Computation
- Computer Vision
- Computer Graphics
- Character & Set Design
- Computer Architecture
- Concurrency

2007 - 2012 LYCÉE IV „Frederic Joliot-Curie“ - Secondary education - Varna, Bulgaria

Diploma of Secondary Education - Excellent 5.73 / 6.00

Languages

2011 Cambridge Certificate of Advanced English (CAE) - Grade A
Equivalent to Council of Europe Language Competence Level C2

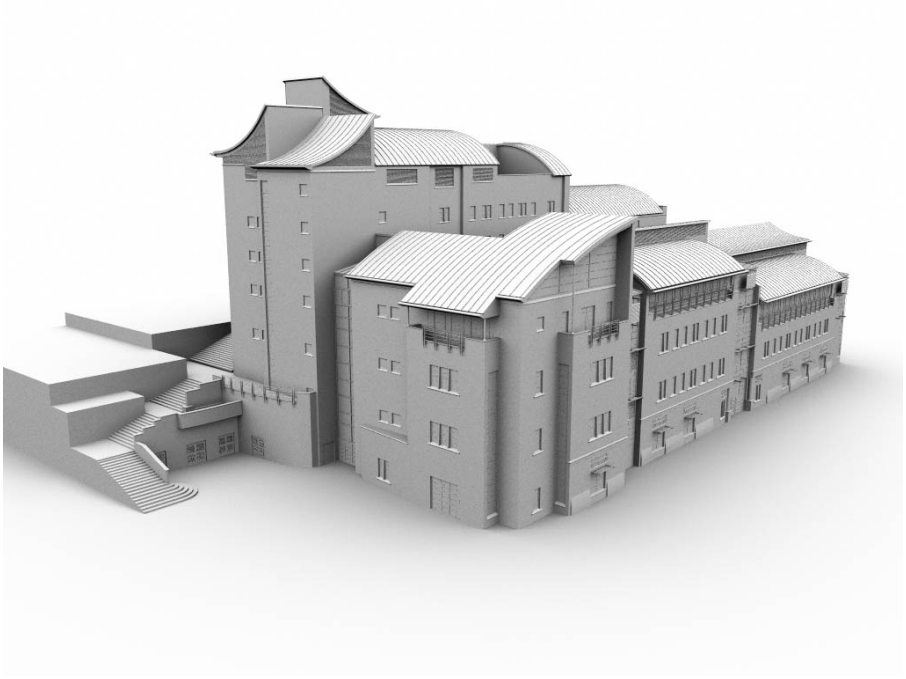
2011 Diplôme d’études en langue française (DELF) - Niveau B2
Equivalent to Council of Europe Language Competence Level B2

Skills & knowledge

- **Programming:** Python, C/C++, Rust, Java, Haskell, Perl, Verilog/SystemVerilog, TCL, Concurrent xC
- **Computation:** Pytorch/Transformers, Tensorflow/Keras, Scikit-learn, Gensim, Spacy, Numpy, R, MATLAB
- **Machine Learning:** LLMs, RNNs/LSTMs, CNNs, W2V, SVMs, Regressions, Zero-shot, Trees, XGBoost, LDA
- **APIs & Systems:** FastAPI/W(A)SGI, Pyro5/GRPC, Gunicorn/Uvicorn, Kafka, OpenVino, ONNX, GGML
- **DevOps & CI/CD:** Docker, Gitlab Pipelines, DVC/LFS, Airflow, Elastic, GraphDB, Jenkins, GCloud Run/Vertex
- **Web Dev:** JavaScript/TypeScript, PHP, Postgre/MySQL, LAMP stack, modular MVC, HTML, CSS, WordPress
- **Media & Design:** DaVinci Resolve/Adobe Premiere, Autodesk Maya/Blender, Adobe Photoshop/Illustrator

Achievements & projects

- **NEXO hackathon - NFT price forcasting (2022 - 1^{st} place)**
- **SENSIKA hackathon against disinformation (2022 - 3^{rd} place)**
- **Mutual information between spike trains in metric spaces in Python/SciPy *(BSc thesis - graded 85/100)***
- **Viola-Jones Object Recognizer with custom Hough-transform refinement in C++/OpenCV *(graded 80/100)***
- **Bristol Museums volunteer database LAMP-stack web application *(2^{nd} year group project - graded 62/100)***
- **ARM hackathon - „Smart-plant“ using mBed NXP LPC1768 microcontroller *(2015 - 3^{rd} place)***
- **SENT protocol analog-to-digital processing and transmission over USB on ATMega1280 in C *(internship)***
- **Simple procedural programming language and compiler with CAMLE in Java**
- **ARM microprocessor architecture emulator in Verilog**
- **A Raytracer and a Rasterizer in C++ and OpenGL (uni coursework + „Raytracing in a weekend“)**



3D Artefact reconstruction: *The MVB - home to the Department of Computer Science @ UoB*

Learning aspirations

- **GenAI:** Langchain, Huggingface Agents & Tools, Nvidia NIM, Pinecone, Chroma
- **MlOps:** Spark, Redis, Ray, Kubernetes, MLflow, LlamaIndex, Gradio, WandB/Neptune
- **Cloud:** AWS, Asure, Google Cloud, Oracle