Bella Nicholson Amsterdam, Netherlands % bellanich.github.io in bella-nicholson O bellanich American Resourceful Machine Learning Engineer with 3+ years of experience in a diverse set of organizations, ranging from tech startups and scaleups to an establish tech company. A life-long learner with a passion for optimizing ML models for real-world applications on resource-constrained devices. Excited about the intersection between engineering and AI research. **EXPERIENCE** Machine Learning Engineer // Brenntag // 🗎 Nov 2023 - Present Amsterdam, Netherlands At the world's leading chemical distributor, I deployed and maintained ML products across 70+ countries. Thus far, I've: Migrated a virtual AI assistant (earning €30+ million in annual revenue) to a more cost-effective and secure AWS platform • Developed a real-time notification system to monitor critical ML jobs and model metrics, improving system visibility Standardized quality controls across 15+ ML project components through the creation of a CLI package prototype Machine Learning Consultant // Deloitte // 🛗 Sept 2021 - Oct 2023 As a contracted ML engineer, I optimized and implemented ML solutions for diverse clients, delivering: Increased system robustness of a Dutch e-classified ads platform's "For You" page, systematically introduced ML Engineering best practices · Launched a self-paced, ML-focused coding training website to standardize and improve code quality across Deloitte NL · Centralized large-scale model storage, experiment tracking across various environments for a German steel conglomerate Machine Learning Research Intern // Crunchr // 🛗 Jan 2020 - Aug 2020 At a people analytics platform, I conducted graph-based representation learning research for the development of ML products: • Built a proof of concept, one-off representation learning process to encode relational database entity information • Demonstrated approach validity by applying deep neural networks to downstream classification tasks on process outputs Computer Vision Intern // Cubelizer // ## June 2017 – July 2017 Madrid, Spain As part of a Google-backed edge computer vision startup, I improved customer detection 12% in retail space optimization: • Developed a video stream-based object detection method in compliance with EU privacy regulations Applied image processing and classical machine learning techniques to low-resolution images **PROJECTS** Pocket Multi-Modal Large Language Model · Deployed a custom embedded, vision-text foundation model across various iOS devices (laptop, phone, tablet) • Extended an existing large language model hardware-optimization framework to quantize a new multi-modal model • Documented results and process in a 4-part blog post series Python Machine Learning Template Automated a comprehensive Python ML project setup process with a project template and 3 simple bash commands • Enabled streamlined project creation with pre-built tests, an automated build process, and auto-generated documentation

EDUCATION

		Cum laude (8.0/10.0)		Sept 2018 - Dec 2020	₽ .	Amsterdam, Netherland
 Courses on AI, including Deep Learning, Computer Vision, Natural Language Processing, Information Retrieval, and Reinforcement Learning Thesis on "Interpretable Representation Learning for Relational Data" in collaboration with Crunchr 						
	·					
Bachelor of Science, Biomedical	Engi	neering				
The College of New Jersey	700	Magna cum laudo (2.9/4.0)	-	Sont 2014 May 2019	0	Ewing Now Jorsey LIS

SKILLS

Programming languages & tooling Python, Git (2016-present), Bash (2018present), Terraform (2023-present), SQL (2019-present), Docker (2022-present)

Master of Science, Artificial Intelligence

Amazon Web Services (2021-present), Google Cloud Platform (2022-present), Databricks (2022-present)

MLOps platforms

ML frameworks PyTorch (2018-present), PySpark (2022present), FastAPI (2021-present), Tensorflow (2021-2022), Keras (2022)

English 100% Spanish 75% German 60% Russian 50%