# Ladislav Vrbsky

Curious, honest, multi-cultural, ambitious, passionate for Machine Learning (ML), Artificial Intelligence (AI), Leading and Learning; MSc in Computer Science/AI; Strives to apply best practices in AI/ML/Data projects, develop team and company.

Lower Specific Science Specific Specif

## EXPERIENCE

• Data Scientist

Jan 2019 – Present

<u>Vibe</u> (Technology for businesses) [Python, SQL, Pandas, sklearn, Spark, Azure, Hive, Sqoop, Shell]

Data and Big Data tasks at a state bank Banpara, among other clients, leveraging the Hadoop, cloud and ML

- o Proactively co-created and educated an in-house data science team
- o Processed and analyzed data to drive important business decisions, avoiding a significant unnecessary expense
- o Proactively delivered results to client leading to company recognition, increased billing and more projects
- Led transformation to being data-driven by evangelizing and educating stakeholders about Data and ML
- o Created PoCs leveraging sklearn, Spark ML and cloud to improve company's offering
- Created ETL/ELT data pipelines
- Briefly administered and configured a Hadoop cluster (Cloudera)
- o Created Business Intelligence (BI) dashboards for business analysts
- $\circ\,$  Held meetings with stakeholders, delivering and discussing data projects

# • Software Developer - Web

Oct 2017 – Jan 2019

Vibe (Technology for businesses)

[Java, C#, SQL, REST, JS, ASP.NET, SVN]

Internet banking web apps, management systems, web services for a state bank Banpara

- Developed, improved, and maintained a variety of new and legacy systems (mostly back-end)
- $\circ$  Boosted 3x tech support speed by improving automation tool (for 1 frequent issue)
- Crushed high-impact bugs in production

# • Applied Artificial Intelligence Researcher (CAPES scholarship)

Jan 2016 – Apr 2018

Operational Research Lab (Electrical Engineering faculty lab)

[Matlab, MEX, Git]

Smart power grid communication optimization research through cell positioning - Related to MSc Thesis

- Implemented a clustering-based topology optimizer for networks w.r.t. communication delay (Open-Sourced)
- Compared clustering algorithms and >50 k-means/model configs, resulting in MSc thesis: Clustering-driven equipment deployment planner and analyzer for wireless non-mobile networks applied to Smart Grid scenarios

#### • Junior Software Developer

Apr 2013 - Aug 2014

AgentFly Technologies (Startup born at the AI Center)

[Java, CVS]

Air traffic management simulation for what-if analysis and future concepts

- o Implemented event-oriented collision avoidance protocol for UAVs, a.k.a drones
- o Optimized heuristic of route generation by extrapolating the collision-based utility values
- Analyzed 4 heuristics of route generation w.r.t. computational and communication costs, and 4 other metrics

# PROJECTS & PUBLICATIONS

- ICNSC 2017 (Intl. Conference): Clustering techniques for data network planning in Smart Grids: Determines deployment positions of Base Stations in a network. Compares clustering algorithms.
- Fraud detection in energy network: Neural Networks, Decision Trees, Fuzzy Logic, Genetic Algorithm
- Memetic algorithm for Traveling Salesman Problem: Genetic Algorithm with local search
- Other ML: Transfer learning (TensorFlow), Simple app using TensorFlow.js, Color quantization (Matlab)

# SKILLS

- Languages: Python 3 yrs, SQL 2 yrs, Java 4 yrs, C#1 yr, C/C++ 1 yr, Matlab 3 yrs, JS | Eng, Por, Cze, Ger
- Competencies: (Un-)Supervised ML, Statistics, Presentation & Public speaking, BI Dashboards
- Interests: Spark, Kafka, TensorFlow 2, PyTorch, Cloud, Reinforcement Learning, Neural Nets | Leadership

#### EDUCATION

- Federal University of Pará (UFPA) | MSc Applied Computing: Artificial Intelligence Belem, PA, BRA
- Kansas State University (KSU) | MSc period Computer Science (intl. exchange) Manhattan, KS, USA
- Czech Technical University (CTU) | BSc Computer and Informatic Science

Prague, CZE