

# 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.

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## EXPERIENCE

- **Data Scientist** Jan 2019 – Present  
Vibe Desenvolvimento (SW solutions comp.) [Python, SQL, Pandas, sklearn, Spark, Hive, Sqoop, Shell]  
*Data and Big Data tasks at a state bank Banpará, leveraging the Hadoop ecosystem and ML*
  - Proactively co-created and educated an in-house data science team
  - Processed and analyzed data to drive important business decisions (Python, Pandas, Scikit-learn)
  - 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
  - Created small PoC projects leveraging sklearn and Spark ML to help stakeholders widen their horizons
  - Created ETL/ELT data pipelines
  - Briefly administered and configured a Hadoop cluster (Cloudera)
  - Created Business Intelligence (BI) dashboards for business analysts
  - Held meetings with stakeholders, presenting and discussing data projects
- **Software Developer - Web** Oct 2017 – Jan 2019  
Vibe Desenvolvimento (SW solutions comp.) [Java, C#, SQL, CI/CD, JSF, JSP, AngularJS, JS, ASP.NET, SVN]  
*Internet banking web apps, management systems, RESTful web services for a state bank Banpará*
  - Developed, improved, maintained a variety of new and legacy systems (mostly back-end)
  - 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, ~~ML~~EX, 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 (Commercial/university startup at Agent Technology Center) [Java, XML, CVS]  
*Large-scale multi-agent project, that models and simulates air traffic control*
  - Implemented event-oriented collision avoidance protocol for UAVs, a.k.a drones
  - 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 2 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, Probability, Statistics, Hadoop ecosystem, Presentation & Public speaking
- **Interests:** Spark, Kafka, TensorFlow 2, PyTorch, Cloud comp., Reinforcement Learning, Neural Nets | Leadership

## EDUCATION

- **Federal University of Pará (UFPA)** | GPA 3.889 Belem, PA, BRA  
*MSc – Applied Computing: Artificial Intelligence*
- **Kansas State University (KSU)** | *MSc period – Computer Science (intl. exchange)* Manhattan, KS, USA
- **Czech Technical University (CTU)** | *BSc – Computer and Information Science* Prague, CZE