Ladislav Vrbsky

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Data Scientist; passionate for Big Data and Artificial Intelligence (AI);
MSc in Computer Science/AI; Experienced in Software Development; Curious;
Multi-cultural; Wants to use modern technologies in AI and Data projects.

Experience

- **Data Scientist / Machine Learning Engineer** Jan 2019 – Present
  Vibe Desenvolvimento (SW dev. company) [`Python, SQL, Shell, Spark, Hive, Sqoop, ...`]
  Data and Big Data tasks at a state bank Banpará, leveraging the Hadoop ecosystem and Machine Learning (ML)
  - Created and managed ETL/ELT data pipelines
  - Lead the transformation to being data-driven by evangelizing and educating many about Data and ML
  - Proactively suggested and currently delivering concepts of valuable projects and KPIs
  - Co-administered and co-configured a Hadoop cluster
  - Will leverage ML to aggregate value using data (Spark ML, TensorFlow or PyTorch)

- **Software Developer - Web** Oct 2017 – Jan 2019
  Vibe Desenvolvimento (SW dev. company) [`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
  - Reduced from hours to minutes solutions of some team tasks by knowledge of various systems
  - Worked in small teams, collaborated with technical requirements team

- **Applied Artificial Intelligence Researcher** (CAPES scholarship) Jan 2016 – Apr 2018
  Operational Research Lab (Electrical Engineering faculty lab) [`Matlab, LaTeX, 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
- **AI projects**: Transfer learning (TensorFlow), Simple app using TF.js, Color quantization (Matlab)

Skills

- **Languages**: Python 2yrs, SQL 2yrs, Java 4yrs, C# 1yr, C/C++ 1yr, Matlab 3yrs, JS | **Eng**, **Por**, **Cze**, Ger
- **Techniques**: Clustering, Neural Networks, Genetic Algorithms, Decision Trees, Graphs, Probability, ...
- **Interests**: TensorFlow, PyTorch, SciKit-Learn, Spark, Reinforcement Learning, Computer Vision

Education

- **Federal University of Pará (UFPA)** | GPA 3.889 Belem, PA, Brazil
  MSc – Applied Computing: Artificial Intelligence Mar 2018
- **Kansas State University (KSU)** | *MSc period – Computer Science (intl. exchange)* Manhattan, KS, USA
- **Czech Technical University (CTU)** | *BSc – Computer and Information Science* Prague, Czech Republic