David A. Pogrebitskiy

Boston, MA | (303) 810-6328 | pogrebitskiy.d@northeastern.edu pogrebitskiy.com | github.com/pogrebitskiy | linkedin.com/in/davidpog

EDUCATION

Northeastern University, Khoury College of Computer Sciences, Boston, MA Candidate for Bachelor of Science in Data Science, Mathematics Minor

GPA: 3.98/4.00 Expected Aug 2024

Relevant Coursework: Neural Networks, Machine Learning 2, Data Visualization, Large-Scale Storage & Retrieval, Mathematics of Machine Learning, Linear Algebra, Multi-variable Calculus, Probability & Statistics

TECHNICAL SKILLS

Languages: Python, SQL, C++, Java, HTML, JavaScript

Libraries/Frameworks: Pandas, NumPy, PyTorch, Scikit-learn, Tensorflow, Plotly, HuggingFace

Databases/Platforms: MySQL, HDFS, Airflow, Dremio, MongoDB, Redis, Neo4j, Spark, ElasticSearch

EXPERIENCE

Automated Execution Analyst Co-op

Jul 2023 – Present

TD Cowen / TD Securities

New York, NY

- Constructed a Python-based FIX Protocol message translator deployed on Airflow, enabling the utilization
 of existing low-touch analytics capabilities for numerous high-touch clients
- Engineered two dynamic Plotly dashboards to enhance the interpretability of quantitative trading signals and facilitate the analysis of order routing, utilizing OneTick and FINRA OTC Transparency Data
- Produced monthly market reports by aggregating terabytes of intraday quote and trade data with SQL

Data Science Research Assistant

Jan 2024 - Present

Khoury College of Computer Sciences

Boston, MA

- \bullet Evaluated the performance of instruction-tuned LLMs in automatically extracting numerical data for meta-analysis, achieving completeness rates up to 82% across various proprietary and open-source models
- Curated a dataset consisting of 699 randomized controlled trials (RCTs) by meticulously annotating research publications, with the objective of extracting numerical clinical findings crucial for meta-analysis

Director of Technical Workshops

Sep 2022 – Apr 2023

Disrupt: The FinTech Initiative at Northeastern

Boston, MA

• Developed and presented four comprehensive Python lectures, covering topics from introductory programming to data manipulation and financial analysis with over 200 students in attendance

Data Engineering Intern

Jun 2022 – Aug 2022

Colorado Springs, CO

• Implemented data streams, state tables, and a JSON API in Apache Kafka with KSQL to deliver precise satellite and mission status updates and facilitate interaction between Python and Kafka for developers

PROJECTS

Space CAMP

Author Attribution: NLP | Python, PyTorch, HuggingFace, Scikit-learn

In Progress

- Utilized Doc2Vec and BERT models for document feature extraction to discern unique linguistic patterns
- Implemented classifiers, such as Logistic Regression, Random Forest, Support Vector Machines, and Neural Networks to compare the effectiveness of embedding techniques and model performance on author attribution

DaveML $\mid C++$, Linear Algebra, Python

Nov 2022

- Implemented ETL module and various regression techniques (linear, ridge, and logistic) using C++ and principles of Linear Algebra and Calculus, such as QR Factorization, Gradient Descent, and cost functions
- Enclosed functionality into a Python module using PyBind11 to enable users with easy experimentation

Hemorrhage Classification with CNN | Python, TensorFlow, Scikit-learn

Oct 2022

• Utilized TensorFlow to design and implement Convolutional Neural Networks (CNNs) for the classification of brain hemorrhages in CT images, achieving a 70% accuracy rate