

# ANDREI SVETOVIDOV

Data Scientist

**Email:** andreis@vt.edu | **Website:** svetovidov.github.io

## TECHNICAL SKILLS

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**Proficient:** Python, SQL, HiveQL, DB2, Spark, Apache Airflow, Databricks, GCP, AWS, Kubeflow, LLM, Langchain, GPT, Gemini, RAG, Scikit-Learn, Tensorflow, PyTorch, Pandas, Numpy, Matplotlib, Seaborn, Oracle PL/SQL, Bash, Docker, Git, LaTeX, Tableau, Matlab, MicroCap, Altium Designer, Agile (Certification)

**Exposure:** JavaScript, C, Java, Scala

## PROFESSIONAL EXPERIENCE

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### LOWE'S COMPANIES INC.

Sep 2021 - Present

#### Data Scientist - Customer and Marketing

Charlotte, NC

- Developed an LLM-driven solution with Gemini Pro to automate SQL query generation, boosting report creation efficiency by 7.2x for business partners and achieving superior latency performance for basic queries compared to industry benchmarks
- Increased projected PRO sales by \$9.4M by designing and validating ML and statistical models to capitalize on distinctive customer shopping and web-browsing behaviors
- Query, analyze, and pre-process large-scale customer data with 1B+ records per table with optimized SQL queries and Pyspark
- Implement end-to-end solutions as CI/CD pipelines in production environments, utilizing Apache Airflow scheduler, Kubeflow, and cloud computing solutions
- Develop specialized NLP word embeddings tailored for the home improvement domain, integrating them into multiple customer-focused ML initiatives

### COMMONWEALTH CYBER INITIATIVE

Jan 2021 - June 2021

#### AI Research Assistant

Arlington, VA

- Authored a chapter on causal inference methods within the field of AI Assurance for a book publication
- Applied NLP algorithms to preprocess and analyze 120+ legal texts, leveraging NLTK, NumPy, and BERT word embeddings
- Utilized advanced ML techniques, including deep learning networks with Pytorch, to forecast the impact of state-level policies on average internet speed

### VIRGINIA TECH TRANSPORTATION INSTITUTE (VTTI)

Aug 2019 - Jan 2021

#### Research Assistant

Blacksburg, VA

- Executed complex SQL queries to gather extensive driving data and performed classification tasks on 30,000+ drivers using Scikit-Learn and Pandas
- Pioneered a computer vision approach for automatic detection of work zone objects in driving videos, employing FFmpeg, OpenCV, Numpy, and Scikit-Learn

### SOVCOMBANK

Oct 2018 - Aug 2019

#### ML Software Engineer

Kazan, Russia

- Engineered a high-load chatbot for automated customer support, catering to over 10,000 daily inquiries, alongside statistical analysis of message logs
- Managed ETL processes within a large-scale data storage system, interfacing with an Oracle database

**TGT OILFIELD SERVICES**

Sep 2017 - Dec 2017

**Data Analytics Intern***Kazan, Russia*

- Designed a neural network algorithm to enhance borehole signal classification accuracy by a factor of four, implemented in Matlab

**UHF DESIGN RESEARCH LAB @ KFU**

Apr 2015 - Jun 2017

**Junior Researcher***Kazan, Russia*

- Conducted signal processing and electromagnetic simulation of circuit boards within a research laboratory setting

**EDUCATION**

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**Graduate Certificate in Data Analytics**, Virginia Tech

May 2021

**M.S., Radio Physics**, Kazan Federal University (Russia)

July 2018

**B.S., Radio Physics**, Kazan Federal University (Russia)

July 2016

**LEADERSHIP & AWARDS**

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Phi Kappa Phi Honor Society

2020

Schlumberger Scholarship

2017