# **Igor Putrenko**

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## **OBJECTIVE**

Experienced analyst with an appetite for data is interested in an analytics role where I can apply my analytical skills to provide a business insight that will maximize profit, decision-making, and productivity through reporting, querying, statistical and exploratory data analysis, data mining, and machine learning

# **TECHNICAL SKILLS / TOOLS**

PROGRAMMING: Python, SQL / T-SQL, R, PowerShell (.NET)

TOOLS: Pandas, Matplotlib, Numpy, Scipy, Scikit-learn, Seaborn, Tableau, Hadoop, Flask, GitHub, Bash MACHINE LEARNING (ML): regression, classification, clustering, dimension reduction, NLP, time series analysis DATABASE MANAGEMENT SYSTEMS: MS SQL Server (administration, development, and BI), PostgreSQL

#### **EXPERIENCE**

# DATA SCIENCE FELLOW AT INSIGHT HEALTH DATA SCIENCE PROGRAM (SAN FRANCISCO) SEP 2017 – PRESENT

Participated in the professional development fellowship, completed and presented a consulting project

- Extracted, cleaned and analyzed 28 million patient records from MIMIC-III clinical database using SQL and Python
- Developed a random forest predictive model for improving the diagnostics of cardiovascular diseases (CVD)
- Developed a SQL Server database containing CVD patients data extracted from MIMIC-III database

#### **INDEPENDENT CONTRACTOR** (BURNABY, CANADA)

2015 - 2017

Provided consulting services in business data and systems analysis as well as technical support to clients in biotechnology, medical diagnostics, IT, HR and finance industries

- Applied ML algorithms using Python to gain insight into lab reagent sales: clustered customers using affinity propagation and developed a gradient boosting classification model to predict their purchasing behavior
- Analyzed business process, described user cases and designed a pharmacy stock management system for optimizing online ordering by community pharmacies
- Improved the end-user experience by resolving licensing, hardware, system / software, and networking issues

### RESEARCH ASSICIATE AT THE UNIVERSITY OF BRITISH COLUMBIA (VANCOUVER, CANADA)

2008 - 201

Planned and conducted electrophysiology (EP) research to identify and validate neuronal ion channel targets for the treatment of chronic pain and epilepsy

- Applied time series analysis using ORIGIN to identify ion channel conductances responsible for drug-induced changes in electrical signaling of brain neurons
- Performed statistical analysis on data collected to test the significance of drug effects
- Developed linear and nonlinear regression models to describe drug-induced changes in neuronal membranes
- Built logistic regression models to estimate drug dose-response relationships

# RESEARCH SCIENTIST AT NEUROMED PHARMACEUTICALS (VANCOUVER, CANADA)

2005 - 2008

Participated as an electrophysiologist in R&D projects focused on the discovery of novel drugs blocking neuronal calcium channels for the treatment of neurological diseases such as pain and anxiety

- Designed and validated EP screening assays for identifying ion channel blockers using automated platforms
- Developed linear and logistic regression models using ORIGIN to determine the mechanisms of drug action
- Performed statistical analyses and built logistic regression models to test drug candidate efficacy and efficiency

### **EDUCATION**

- Ph.D., BIOCHEMISTRY, INSTITUTE OF BASIC BIOLOGICAL PROBLEMS, RAS (RUSSIA)
- B.Sc., BIOPHYSICS, VORONEZH STATE UNIVERSITY (VORONEZH, RUSSIA)
- CERTIFICATE, APPLIED DATABASE AND NETWORK ADMINISTRATION, BCIT (VANCOUVER, CANADA)