Denis Kazakov

http://94kazakov.github.io/
(303) 653-4295, 94kazakov@gmail.com
23686 E. Roxbury Cir. #6-308, Aurora, CO 80016

OBJECTIVE

Address real problems using Data Analysis, Machine Learning, Mathematics and Computer Science.

EDUCATION

University of Colorado, Boulder: College of Engineering & Applied Science (GPA: 3.99, Bachelor of Science, May 2017)
Anticipated Majors: Applied Mathematics, Computer Science
Distinctions: *Engineering Leadership Program*, *Dean's List, Esteemed Scholar, Engineering Honors Program (EHP), RMCCDC 2014 2nd place, EHP Recitation Leader, University of Colorado Engineering Council.*
Notable Coursework: *Big Data (ongoing), Machine Learning (ongoing), Startup Essentials, Data Mining, Probability, Operations Research, Programming Languages, Software Dev-t, Algorithms, Matrix Methods, Computer Systems, Diff Eq. & Lin. Algebra.*

SKILLS

Proficient: Python | JavaScript | C++ **Comfortable with:** Java | Scala | MATLAB
Technical: Data Mining: R | Julia | Crawlers | API, Data Visualization: Sigma.js | D3 | JavaScript, Machine Learning: scikit-learn | NLTK, Databases: MongoDB | Neo4j | SQL
Non-Technical: Lean Startup methodology, Agile methodology, Public Speaking | Presentation.

WORK/EXPERIENCE

Projects: (read more on my webpage: 94kazakov.github.io)

- Ebola Outbreak Modeling and Prediction using ODE and Network analysis of country regions. The model uses Markov Random Walk to find or predict the most infectious regions of the ongoing virus outbreak. (MATLAB | R)
- Movie Recommendation system using "Simon Funk" SVD ("Funk SVD" technique is used in the Netflix algorithm) on users' movie ratings dataset to predict unknown ratings and to find similar movies or similar users. (Julia)
- Customer Market Analysis Tool that shows Twitter Sentiment Analysis of a chosen topic on a chosen location. (node.js |D3 | JavaScript)
- Investigating Adverse Drug Reactions using optimized Apriori Algorithm that runs in fewer than 4 minutes on a dataset of about 1,000,000 medical reports to identify interactions between prescription drugs. (Python)
- Image Segmentation and Feature Extraction using Spectral Clustering technique on satellite terrain images.
- Social Network Popularity Ranking using PageRank.
- Singular Value Decomposition (SVD) and Discrete Cosine Transform (DST) to compress images of kittens and prove that even a few wavelets can carry an adorable nature.
- JavaScript Interpreter written in Scala that uses Abstract Syntax Trees (ASTs) to match the syntactic structure of JavaScript and is tested by parsing JavaScript code. (Scala)

Standard & Poor's Capital IQ, Credit Solutions (Country Risk Architecture Intern, summer 2015 - current)
Graph Web Application: Worked under supervision of Thomas Zakrzewski, head of Architecture at S&P Capital IQ, Credit Solutions. Designed software architecture and implemented its foundation to create a more intuitive workflow to handle financial data with visualization aid of a Graph Network. Created a web-application tool with JavaScript front-end (Sigma.js + Linkurious plugins), Java back-end (Tomcat server, Neo4j, Cassandra).
Mission Possible (internal startup competition): led a team of 7 interns, followed lean startup methodology to develop a tool that leverages consumer data to create a thematic investment portfolio on a chosen theme.

ioSemantics (Software Engineering Intern, summer 2014)
Integrated AI language parser into a powerful visual platform. Developed a Java RCP using object-oriented design. Focused on GUI design and programming, data visualization, script automation, distributed systems integration into the platform and designing UML diagrams in an agile start-up environment.