

# Alan Polyak

/ alanpolyak.github.io /

A passionate team leader, data scientist, developer, and designer interested in creating a meaningful impact on the world through artificial intelligence, data visualization, information ethics, and novel technologies. I am a graduate student at Cornell University, combining my studies of data science and management with social and visual design.

## Education

05/2020	<b>Cornell University</b> <i>MEng Operations Research and Information Engineering</i> Concentrations in Data Science and Technical Management
05/2019	<b>Cornell University</b> <i>BS Biometry &amp; Statistics   Computer Science &amp; Machine Learning   3.6 GPA</i> Concentrations in Data Science and User Experience Minors in Applied Economics and Business

## Work Experience

09/2018 - 01/2019	<b>Machine Learning Engineer</b> <i>Cornell University Sustainable Design (CUSD)   Ithaca, NY</i> <ul style="list-style-type: none"><li>Deployed predictive and optimization models using data from intelligent sensors and wearables to learn user's HVAC system usage and room occupancy.</li><li>Applying computer science and electrical engineering, we have developed a system that offers substantial energy savings.</li></ul>
05/2018 - 08/2018	<b>Data Scientist Intern - Data Products</b> <i>VISA   San Francisco Bay Area</i> <ul style="list-style-type: none"><li>Built an original natural language processing algorithm for fuzzy matching, which resulted in \$6MM added value through product data enrichment.</li><li>Implemented probabilistic classifier machine learning models for payment service provider categorization in transaction data.</li><li>Utilized survival analysis and time series for predictive product analytics.</li></ul>
08/2017 - 05/2018	<b>Head of UX and Front-End Engineering</b> <i>Cornell Web Development   Ithaca, NY</i> <ul style="list-style-type: none"><li>Conducted UX research with a data-driven approach to better understand user preferences through web data analytics and A/B testing.</li><li>Managed a team of developers from project conception to deployment using the agile software development framework and numerous iterations.</li><li>Administered and taught public classes on JavaScript and web design.</li></ul>
08/2017 - 12/2017	<b>Data Analyst</b> <i>Elephant Listening Project   Dzanga Bai, Central African Republic   Ithaca, NY</i> <ul style="list-style-type: none"><li>Saved a total of 4 endangered African elephants from poachers with AI.</li><li>Tracked elephants in real-time with signal processing.</li><li>Helped create a machine learning classifier on live incoming soundwaves.</li></ul>

## Projects and Accomplishments

12/2018	<b>Data Mining and Machine Learning for Multi-Class Job Classification</b> <i>Kaggle   Google   <a href="https://bit.ly/32uzAvM">https://bit.ly/32uzAvM</a></i> <ul style="list-style-type: none"><li>Predicting what job you're best suited for at Google using feature engineering, text mining, naïve bayes, random forest, logistic regression, and LASSO.</li></ul>
07/2018	<b>Finalist - Global Hackathon 2018</b> <i>VISA   San Francisco Bay Area</i> <ul style="list-style-type: none"><li>Pioneered a novel approach to fraud detection that incorporates layers of deep learning systems to reduce false positives and chargebacks, saving companies \$Billions yearly within the payments industry.</li></ul>

## Personal Info

**Contact**  
(347) 987-6422 (Cell)  
atp68@cornell.edu

**LinkedIn**  
linkedin.com/in/alanpolyak

## Relevant Coursework

- Multivariable Calculus and Linear Algebra
- Advanced Statistical Modeling
- Statistical Computing and Simulation
- Data Structures and Algorithms
- Machine Learning for Data Science
- Statistical Data Mining and Time Series
- Big Data Management and Analysis
- Probability and Statistics Theory
- Optimization and Operations Research
- Stochastic Processes and Modeling
- Interactive Data Visualization
- Technical Product Management
- Technology Design for Social Impact
- Web Programming and Design
- Micro and Macro Economic Theory
- Finance | Marketing | Accounting

## Languages

Russian   Ukrainian	<div><div></div><div></div><div></div><div></div><div></div></div> <div>Native</div>
Spanish   Polish	<div><div></div><div></div><div></div><div></div><div></div></div> <div>Advanced</div>
Chinese	<div><div></div><div></div><div></div><div></div><div></div></div> <div>Basic</div>

## Technical Skills

- Python | Java | Scala | MATLAB | VBA
- R | SQL | Hive | GIS | Tableau | D3.js
- Hadoop | Spark | MapReduce | Pig
- JavaScript | PHP | CSS | HTML | jQuery
- NLP | Data Mining | Machine Learning
- Photoshop | InDesign | Illustrator | Sketch
- Agile Development | Microsoft Office Suite

## Personal Interests

- Photography | Borscht | Samoyeds
- Activism | Kombucha | Probiotics