# Dawid Kluszczynski

#### Education

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INTENDED GRAD: DEC 2021 | GPA: 3.64

## Computer Science + Statistics / University of Illinois Urbana - Champaign

Honors: Chancellor's Scholar, Edmund J. James Honors Scholar, Alumni Association Award, Dad's Association Award

**Technical Courses:** ML for Robotic Manipulation, Applied Machine Learning, Algorithms & Models of Computation, Systems Programming, Numerical Methods, Database Design, Data Structures, Statistics & Probability I/II, Applied Stats

# Experience

JUNE 2021 - AUGUST 2021

### Software Engineering Intern / Two Sigma – NYC, NY

- Reduced development time for alpha models by eliminating need to convert models to Java by quants
- Created high throughput pipeline for data backed by Apache Arrow from Python server to Java trading app
- Developed a basic alpha model spec and tools to easily validate Python models in QA and cached history
  DECEMBER 2020 PRESENT

#### Software Engineering / interviewing.io – San Francisco, CA

- Reduced server costs by optimizing interview scheduling algorithm to perform XX% faster on lower spec CPU
- Decreased load by YY% on operations department by automating repetitive tasks
- Increased company revenue by \$ZZZ thousand by optimizing marketing flows and increasing conversions JUNE 2020 AUGUST 2020

### Software Engineering Intern / Dataminr – NYC, NY

- Created dashboard for managers using React, Scala, and Kafka to monitor what streams are monitored
- Reduced required manager watch time by utilizing metrics for alerting when streams are not monitored
- Automated the previously manual process of selecting streams to monitor

AUGUST 2019 - DECEMBER 2020

#### Software Engineering & Data Scientist / Caterpillar -Peoria, IL

- Reimplemented Tableau using Python and Angular to improve computation and render time from 160 seconds to 0.5 seconds, while removing the need for Tableau licenses costing \$600,000 annually.
- Aided in designing Bayesian model in Python as tool for engineers to predict part fatigue failure trends
- Improved Computer Vision model training process with aid of novel synthetic data approach

# **Projects**

Intelligent-Snakes

- Created snake game in C++ using OpenFranework
- Implemented a Genetic Algorithm using Tiny-DNN in C++ to train 100 unique snakes
- Snakes could eat over 160 pieces, avoid their own body, and adopted unique strategies for survival

#### Terabyte Sort

- Sorted a terabyte of 64 bit integers using a self-built Raspberry Pi Cluster in Go
- Orchestrated cluster with Kubernetes over LAN to minimize latency and signal interference

#### Flappy ML

- Recreated Flappy bird game in Python using PyGame framework, allowing multi agent input
- Created a Genetic Algorithm following the NeuroEvolution of Augmenting Topologies methodology
- Birds could fly infinitely long without dying after a day of training

#### Skills

Python, Java, Android, Scala, C++, C, C #, React, Angular, Dart, Flutter, Kafka, RabbitMQ, Elastic Search, Docker, Node.JS, GraphQL, MySQL, PostgreSQL, MongoDB, Unsupervised Machine Learning, R, MATLAB, Octave