Dawid Kluszczynski

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Education

INTENDED GRAD: DEC 2021 | GPA: 3.54

Computer Science + Statistics / University of Illinois Urbana – Champaign

Honors: Chancellor's Scholar, Edmund J. James Honors Scholar, Alumni Association Award
Extracurricular Activities: iRobotics Combotics Controls Captain, InSPIRE Outreach Director

Technical Courses: Algorithms & Models of Computation, Systems Programming, Numerical Methods, Database Design, Data Structures, Computer Architecture, Linear Algebra, Statistics & Probability I/II, Discrete Structures

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

Global Pong
- Ping pong, but on a global scale! When the ball is in your area, hit it to change direction. If it lands in one of the oceans, the opposite coast wins!
- Created a containerizable backend in Node.js to be the source of truth for where the ball is. Adjusts ball speed based on curvature of earth (north vs south) and Android companion app for users

Experience

JUNE 2020 – AUGUST 2020

Software Engineering Intern / Dataminr - NYC

- 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 – PRESENT

Software Engineering & Data Scientist / Caterpillar - 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

MAY 2019 – AUGUST 2019

Software Engineering Intern / Ayuda Care - CA

- Used Flutter and Node.JS to create a responsive multiplatform application adhering to Material Design standard
- Enhanced application user interface to target seniors by surveying about preferences and usage

APRIL 2017 – APRIL 2018

Skills

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