GLEB ALEXEEV

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EDUCATION

Indiana Unviersity   Bloomington, IN
MS in Computer Science   **current, expected May 2018**
BS in Mathematics, BS in Computer Science   *Aug. 2013 to May 2017*
Hutton Honors College. Indiana University Founder's Scholar and Dean's List, 2014 through 2017

EXPERIENCE

DemandJump, Inc   Indianapolis, IN
Data Analyst Intern   *Jan. 2017 to Aug. 2017*
Wrote and altered Python wrapper and C++ driver package for computing persistent homology. Used ARIMA modeling, entropy computation, and information gain for anomaly detection on Markov models. Worked with over 50GB of market and search data. Worked with the Snowplow Canonical event model for computing optimal event pathways and identity stitching. Worked on graph visualization and generation with Lightning and Gephi.

Indiana University   Bloomington, IN
Assistant Instructor   *Aug. 2015 to present*
Instructor for P442 (Digital Systems) and C335 (Computer Structures) systems specialization courses on embedded systems programming using C and assembly. Managed and organized website for C335. Worked with ARM Cortex-M3 processors, I/O, and various hardware protocols. Built, managed, and debugged drivers for different sensors and outputs. Worked with ChibiOS RTOS for building and managing students' trail counters.

Research Assistant   *Jan. 2015 to present*
Researched current topics in deep learning with neural networks. Worked with Arduino sensors and Android applications for observing patient behavior. Worked with Soldering, sensor programming, mobile development, conducting user studies, and data analysis.

BeeCorp, Inc   Bloomington, IN
Data Analyst Intern   *Expected Jan. 2018 to May. 2018*

Mackie Neuroscience Research Laboratory   Bloomington, IN
Research Assistant   *Feb. 2014 to Apr. 2017*
Compared differences of genetic make-up in diverse subjects DNA sequences through genotyping and sequencing. Researched the effects of various drugs on the endocanabanoid system, and how the healing factor is affected.

PROJECTS

Gus Grissom Trail Counter / Dark Sky Projects   *May 2016 - Present*
Thesis work with professor Bryce Himebaugh and the DNR on a custom-built, low-energy accurate mobile trail people-counter able to send data through Bluetooth, offloading data to a private website from a mobile application. Used Fourier transforms to analyze accelerometer signals. Similar hardware and firmware generalized for use in Dark Sky location project for a custom light pollution sensor capable of cellular data transmission. Worked with custom logic and circuit design through EDA tools such as Autodesk Eagle PCB Design Suite.

Ultralight Sensors for Avian Migration Studies   *May 2016 - May 2017*
Worked with professor Geoffrey Brown on a custom-built, low-energy, low weight, IoT STM32 based GPS with accelerometer communicating through SPI to monitor and understand bird behavior.

Other Projects
Wrote a Monte Carlo simulation using Metropolis-Hastings algorithm of Kaon pair production from high energy Photon-Proton scattering. Worked with a peer on Arduino driven device for car blinds. Worked with STM32 and Digilent Basys3 FPGA to create a Microprocessor. Created Neural Network run on the MIT CIFAR10 dataset. Wrote K-Means, EM, Linear/Logistic Regression algorithms in R; Naive Bayes and a Two-Layer Neural Network in Python.

PROFICIENCIES

Spoken Languages: Fluent in Russian; conversant in Ukranian and German
Programming Languages: C, Python, Java, Latex, R, C++, GDB, Verilog, Arduino, Javascript, MATLAB, Bash