Jonathan Hrach

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US and EU Citizen

Objective: To obtain an internship in the field of Computer Science

Education

Georgia Institute of Technology, Atlanta, GA — August 2016 – May 2020 (Expected)
- Candidate for Bachelor of Science in Computer Science — Overall GPA: 3.60, Major: 3.73
- Concentrations in Artificial Intelligence and Information Internetworks

Experience

CDW Software Engineering Internship, Chicago, IL — Summer 2019
- Developed integration tests for website used for CDW's internal system using the Cypress JS automation testing framework
- Discovered list of software bugs present on the website and presented Cypress video recordings as evidence to lead web developer
- Successfully integrated tests into CDW's Continuous Integration environment and reduced testing runtime by using a parallelized Jenkins pipeline
- Built Power BI model to display multiple visualizations from website's sales data using M code, relationships, and the power query editor

Undergraduate Research, Georgia Institute of Technology — April 2018 – present
- Theorized and proposed an effective strategy for the detection of phone number chunking in everyday speech
- Responsible for programming an algorithm in MATLAB by collecting and analyzing speaker diarization data collected from Android app
- Project was successful, as all numbers were detected and false positives only occurred under background noise
- (in progress) Developing soft material-based actuation and acoustic sensing methods to create an intelligent self-tightening foot wearable using air pouches

Private Chess Coach, Highland Park, IL — Summers 2010 – 2019
- Instructed elementary and high school students by developing critical thinking, problem solving, and decision making techniques
- Taught members of Highland Park High School Chess Team advanced strategy and tactics through game reviews

Projects

Machine Learning — January 2019 – May 2019
- Developed method for predicting the rating strength of a chess player using their portable game notations
- Trained several supervised classification/regression, randomized optimization, and unsupervised learning models using scikit-learn, ABAGAIL, and WEKA to estimate rating and detect whether a chess player's moves were of master strength

Computer Vision and Deep Learning — August 2019 – December 2019
- Implemented multiple well known CV algorithms including Harris Corner Detection, SIFT, and RANSAC from scratch
- Constructed multiple CNN's and fine-tuned several models for stereo matching and scene recognition on Google Cloud using PyTorch

Android App Development — Summer 2018 – December 2018
- Completed Udacity's Android Basics Nanodegree by Google, where I developed multiple apps in Android Studio with concentrations in user interface, user input, multi-screen apps, networking, and data storage
- Teamed up with classmates to develop a donation tracker app to support a non-profit organization using Agile principles

Skills

Programming: Python, Java, MATLAB, C, JavaScript, SQL
Software & Tools: PyTorch, NumPy, Pandas, Matplotlib, Android Studio, Microsoft Azure, Power BI, SolidWorks, Microsoft Office
Clubs: Chess team, GIT MAD, Motorcycle club, Ski + Snowboard club, Data Science
Languages: English (native), French (intermediate)

Leadership

Georgia Tech Chess Team, Vice President — August 2018 – present
- Currently organizing and recruiting new members for weekly team meetings
- Assisted Georgia Tech's "A" and "B" teams as VP that won the 2017 and 2018 Georgia Intercollegiate State Chess Championship

Awards

Dean's List (Fall 2016, Fall 2017, Fall 2018, Spring 2018, Fall 2019)
Faculty Honors (Spring 2017)
USCF National Chess Master (2016)
USCF National Life Master (2019)
U.S Amateur Team National Chess Champions (2018)