Benjamin Berg
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781-248-9467

Research Interests

Artificial Intelligence, Machine Learning, Algorithmic Game Theory, Geometric Algorithms

Education

Duke University, Trinity School of Arts & Sciences — Graduated May 2013

Magna Cum Laude, major in Computer Science, minors in Economics and Math

Cumulative GPA: 3.865

Thesis resulting in graduation with High Distinction in Computer Science

Received Alex Vasilos Memorial Award in Computer Science for outstanding research, coursework, and contributions as a teaching assistant

Phi Beta Kappa

Wellesley High School, Wellesley, MA — Graduated May 2009

AP Scholar with Distinction, National Honor Society, National Merit Letter of Commendation

Work Experience

Software Developer, Scratch Team, Life Long Kindergarten Group, MIT Media Lab — August 2015 – Present

Developing new features for the Scratch programming language and development environment.

Technology Associate, Statistical Arbitrage, Susquehanna International Group — August 2013 – August 2015

Worked on the statistical arbitrage desk, which specializes in low latency trading of securities. Worked on the core of the low latency trading platform, as well as scalable monitoring, alerting, and process scheduling tools.

Technology Summer Analyst, Barclays Capital — Summer 2012

Performed analysis of middle office equities trading systems.

Teaching Assistant, Duke University Computer Science — 2011-2013

Introduction to Computer Science, Spring 2011 and Fall 2011 (Professors Owen Astrachan, Robert Duvall)

Software Design and Implementation, Spring 2012 and Fall 2012 (Professor Robert Duvall)

Operating Systems, Spring 2013 (Professor Jeffery Chase)

Projects and Research

Collaborating with MIT Media Lab and CS students on analysis of usage data, development of a Scratch data analysis library, and image background removal for custom Scratch sprites.

Worked with SIG assistant traders to complete quantitative analysis of trading opportunities related to long dated options on U.S. equities.

Wrote undergraduate thesis in the area of geometric algorithms with advisor Pankaj Agarwal, *Curve Simplification in the L-2 Norm*. Provided an algorithm to simplify large data sets, allowing them to be processed more efficiently while introducing minimal error.

Developed mobile web app using JQuery mobile and LAMP back end stack to help doctors at Duke Hospital track the progress of their med students. App was demonstrated at a conference and for President of the Duke University Health System.