

Warren J. Schudy

Brown Department of Computer Science
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EDUCATION

Brown University (*September 2005-around 2010*)

- Computer Science PhD candidate.
- Master's thesis: How to rank with few errors: A PTAS for Weighted Feedback Arc Set on Tournaments
- MS Spring 2007
- GPA 4.00

Worcester Polytechnic Institute (*August 2000-May 2005*)

- BS May 2005 with High Distinction
- Majored in Physics and Computer Science, minor in Mathematics
- GPA 3.87
- Computer Science Senior Thesis: Translating Linear Temporal Logic into Büchi Automata (advisors: Kathi Fisler and Dan Dougherty).
- Physics Senior Thesis: Quantum Information (advisor: P.K. Aravind)

COURSES

Brown University

- CS 149: Introduction to combinatorial optimization
- CS 155: Probabilistic Methods
- CS 176: Introduction to Multiprocessor Synchronization
- CS 244: Topics in Game-Theoretic Artificial Intelligence
- CS 257: Introduction to Nano Computing
- CS 258: Hard Problems in Combinatorial Optimization
- CS 295-4: Approximation Algorithms
- CS 296-1: Topics in Programming Languages and Systems
- CS 295-8: Computer Science, Algorithms, and Economics
- MA 153: Abstract Algebra
- AM 263: Theory of Probability (in progress)
- Sheridan Center for Teaching and Learning Teaching Certificate I

WPI (partial list)

- MA 4235: Mathematical Optimization
- PH 501: Math Methods for Physics
- EE 2011: Intro Electrical and Computer Engineering
- SS 2117: Environmental Economics

TEACHING EXPERIENCE

TA, Brown University CS Dep't (Fall 2006, Fall 2007)

- Introduction to Combinatorial Optimization, taught by Meinolf Sellman.
- Introduction to Nanocomputing, taught by John Savage.

WPI Math and Science Help: Tutor / Peer Leader (Fall 2001-Fall 2003)

- Led help-sessions in calculus-based physics and multivariable calculus.

RESEARCH AND PROFESSIONAL EXPERIENCE

University of Bonn (June 2008)

- Visited Marek Karpinski.

Google Research (Summer 2007)

- Host: D. Sivakumar.

WPI Physics Department (Summer 2004 & 2005)

- Modeled semiconductor devices reliant on quantum mechanical effects, using finite element (computational) methods to get numerical answers to hard problems. Supervisor: L. R. Ram-Mohan

Lavaplume Software (Summer 2003)

- Designed and implemented a Bayesian document classifier.
- Developed significant portions of a UI using C# and Microsoft Visual Studio .NET.

WPI Physics Department (Summer 2002)

- Provided assistance with experimentation in polymer diffusion using quasi-elastic light scattering spectroscopy. Supervisor: G. Phillies

PUBLICATIONS

- Claire Mathieu and Warren Schudy. How to Rank with Few Errors: a Polynomial Time Approximation Scheme for Minimum Feedback Arc Set on Tournaments. STOC '07. (Preliminary version in ECCC TR06-144.)
- Claire Mathieu and Warren Schudy. Yet Another Algorithm for Dense Max-cut: Go Greedy. SODA '08.
- Warren Schudy. Finding Strongly Connected Components in Parallel using $O(\log n)^2$ Reachability Queries. SPAA 2008.
- Amy Greenwald, Zheng Li, Warren Schudy. More Efficient Internal-Regret-Minimizing Algorithms. COLT 2008.
- Claire Mathieu and Warren Schudy. Correlation Clustering with Noisy Input. In preparation.
- Marek Karpinski and Warren Schudy. Linear-Time Approximation Schemes for Dense Unsatisfied Constraint Minimization Problems. In preparation.

SERVICE

Conference reviewing (*Ongoing*)

- NESCAI 2007, APPROX 07, FOCS 2007, STOC 2008, SODA 2009, ALENEX 2009

Journal reviewing (*Ongoing*)

- Algorithmica, Mathematics of Operations Research

Theory Lunch Organizer (*Spring 2008*)

- Organized the weekly theory seminar.

FOCS Volunteer (*Fall 2007*)

- Audio-visual assistance and other local arrangements .

Curriculum Czar (*May 2007-May 2008*)

- Grad student representative on departmental curriculum committee.

New Student Orientation Czar (*August 2006*)

- Arranged the 4-day orientation of incoming PhD and masters students for Brown Computer Science.

EXTRACURRICULAR ACTIVITIES

FIRST Robotics (*2000-2005*)

- Helped design and build a 130-pound robot to-compete in a series of regional and national competitions. Competition rules and design parameters vary each year.
- Personally designed and built the software that controls the robot. (2001, 2002 and 2003)
- Head of Robot Controller Software (2003).
- Won National Controls Award (2003).
- Head of Controls (2004).

AWARDS AND HONORS

NSF GRFP Honorable Mention (*2006*)

- Received honorable mention for the NSF graduate fellowship program.

WPI Outstanding Computer Science Senior Award (*2005*)

- “outstanding record and who has contributed to the enrichment and professional development of his or her fellow students”

WPI Salisbury Award (*2005*)

- “most meritorious seniors at the university... faithfully, industriously, and with distinguished attainment”

Putnam Math Contest (*2005*)

- Ranked 159.5th nationally (40 points) on this 6-hour undergraduate math contest.
- Highest score at WPI.

Honor Societies (*2003-2004*)

- Computer Science (Upsilon Pi Epsilon, 2004).
- Math (Pi Mu Epsilon, 2003).

- Physics (Sigma Pi Sigma, 2004).
- Engineering (Tau Beta Pi, 2004).