

# Ram Raghunathan

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Pittsburgh, PA

(469)237-9168  
U.S.A. Citizen

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## Work Experience

### Tower Research Capital

Infrastructure Developer

Infrastructure Developer Intern

Enhanced Performance of Core High Frequency Trading Platform.

- Developed dynamically configurable market data broadcaster.
- Developed ground-up rewrite of core market data access library and trader-facing API.
- Developed high-performance multicast-like system for inter-process communication.
- Evaluated performance of a market data compression scheme.
- Managed infrastructure team laboratory including overhaul of OS imaging system.
- Developed Linux kernel module and user-space library to support Intel Architectural Performance Monitoring system.

New York, NY

July 2011 – July 2013

May – August 2010

### Intel Research

Part-Time Intern

Full-Time Summer Intern

Developed Proof of Concept of Networked VOD System.

- Developed proxy MythTV (an open source alternative to TiVo or Windows Media Center) backend.

Pittsburgh, PA

January – May 2009

June – August 2009

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## Skills

### Technical:

- C++, C, Shell Script
- Low-latency Systems
- Multicast Networks
- Unix Programming
- Linux Kernel Module Programming

### Personal:

- Team player
- Articulate
- Adaptable
- Analytical

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## Publications

Gandhi, Anshul, Harchol-Balter, Mor, Raghunathan, Ram, Kozuch, Michael. (2012). "AutoScale: Dynamic, Robust Capacity Management for Multi-Tier Data Centers" *ACM Transactions on Computer Systems*, To Appear

Gandhi, Anshul, Harchol-Balter, Mor, Raghunathan, Ram, Kozuch, Michael. (2011). "Distributed, Robust Auto-Scaling Policies for Power Management in Compute Intensive Server Farms" *Open Cirrus Summit 2011*

Raghunathan, Ram. (2006). "Does Knowledge about Search Domain Lead to More Efficient Search in Information Retrieval Applications?" *Proceedings of the 1st International Conference on Digital Information Management*, IEEE Press: 442-447.

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## Education

### Carnegie Mellon University

Ph.D. in Computer Science

B.S. in Computer Science (with University and College Honors), Minor: Computational Finance

Senior Thesis: "Design and Implementation of a Power-Aware Load Balancer" (Advisor: Professor Mor Harchol-Balter)

Pittsburgh, PA

August 2013 – Present

Graduated May 2011

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## Honors

### School of Computer Science Alumni Award for Undergraduate Excellence

Awarded for the best Senior Thesis.

2011

### Intel First Year Research Experience

### Summer Undergraduate Research Fellowship

Worked at Intel Research Pittsburgh on the Neighborhood Aware Networking Project

Spring 2009

Summer 2009

### Intel International Science and Engineering Fair

Developed and tested a novel search algorithm that uses information about the search domain

Spring 2007