

## JORGE J. ORTIZ - QUANTITATIVE RESEARCHER

Associate Professor, Electrical & Computer Engineering  
Rutgers University  
AI & Computer Vision Lead, New York Yankees

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**Quantitative Research Expertise:** Mathematical modeling, statistical learning, optimization algorithms, and data-driven decision systems. Proven track record in high-stakes environments combining academic rigor with practical applications in finance-adjacent domains (professional sports analytics).

### (a) Education

Ph.D. Computer Science	University of California, Berkeley	2013
M.S. Computer Science	University of California, Berkeley	2010
B.S. Computer Science	Massachusetts Institute of Technology	2003

### (b) Core Quantitative Competencies

**Mathematical & Statistical Methods:** Advanced optimization (convex/non-convex), stochastic processes, time series analysis, Bayesian inference, Monte Carlo methods, multivariate statistics, algorithmic trading strategies.

**Machine Learning & AI:** Deep learning architectures, reinforcement learning, ensemble methods, feature engineering, model validation, hyperparameter optimization, production ML systems.

**Computational & Data Analysis:** Large-scale distributed processing, high-performance computing, numerical methods, real-time analytics, signal processing. Proficient in Python, R, MATLAB, C/C++, SQL.

### (c) Professional Experience

2019–present	<b>AI &amp; Computer Vision Lead, New York Yankees</b> <i>Lead quantitative analyst developing predictive models and optimization algorithms for competitive advantage in professional sports</i>
2018–present	<b>Associate Professor (Tenured), Rutgers University</b> <i>Director, Sensing and Reasoning Lab; \$31.9M in research funding</i>
2013–2018	<b>Research Staff Member, IBM Research</b> <i>Machine learning algorithms and large-scale analytics systems</i>
2003–2007	<b>Software Engineer, Oracle Corporation</b> <i>Database optimization and performance analytics</i>

### (d) Key Research Areas & Impact

- **Machine Learning & Sensing:** Developed algorithms for multimodal sensor fusion, human activity recognition, and real-time analytics systems.
- **Large-Scale Data Systems:** Led research in distributed computing, IoT data processing, and intelligent building systems.
- **Mathematical Modeling:** Applied statistical methods and optimization techniques to human behavior prediction and sensing applications.
- **Sports Analytics:** Currently leading AI and computer vision initiatives for professional baseball operations at the New York Yankees.

### (e) Research Impact & Recognition

- **Publications:** Peer-reviewed papers in top-tier conferences (IPSN, BuildSys, ICISSP, SenSys)
- **Awards:** Best Paper Award (ICISSP 2018), Best Paper Finalist (multiple conferences)
- **Patents:** 12+ issued patents in machine learning and data systems
- **Funding:** Significant research funding from NSF, NIH, and industry partnerships
- **Leadership:** Supervised 3 Ph.D. graduates, multiple graduate students

### (f) Key Publications & Awards

- Best Paper Award, ICISSP 2018 (21% acceptance rate)

- Best Paper Finalist, BuildSys 2015 (23% acceptance rate, 1st highest review score)
- Best Paper Finalist, BuildSys 2015 (23% acceptance rate, 2nd highest review score)
- Publications in IPSN, SenSys, BuildSys, and other top-tier venues
- Keynote Speaker, Workshop on Smart and Connected Indoor Environments (SECON 2017)

**(g) Technical Leadership & Service**

- **Conference Leadership:** General Chair BuildSys 2022, Steering Committee Chair BuildSys 2024-25, TPC Chair BuildSys 2020
- **Industry Collaboration:** Technical advisor for Nissan, IBM, Yankees; Judge Newsweek AI Impact Awards 2025
- **Editorial:** Reviewer for top ML/systems conferences (NeurIPS, ICLR, IPSN, SenSys, BuildSys)