Robert W. Cohn
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EDUCATION

Ph.D. in Computer Science, Artificial Intelligence, University of Michigan, Ann Arbor (fall 2009 - winter 2016)

- Ph.D. dissertation: I designed, analytically characterized, and empirically evaluated Bayesian AI algorithms for agents to select queries to pose to their human users, towards addressing the issue of how agents may selectively gain knowledge about how they should best complete their tasks when they lack information
- Relevant graduate coursework: machine learning, reinforcement learning, deep learning, artificial intelligence, mobile robotics, digital logic optimization, probability, statistics, random processes
- Notable side projects:
    - Worked on one of the first reinforcement learning and deep learning integrations in 2012 with Dr. Honglak Lee, applied to robotic path planning on simulated navigation tasks
    - Designed, implemented, and tested AI algorithm for physical hallway roaming robot
    - Developed and maintained internal website for tracking table tennis rankings for CSE department
- Teaching: teaching assistant for seven semesters (honorable mention for teaching award, fall 2009)
    - Courses: Machine learning, discrete mathematics, and data structures and algorithms

B.S. in Computer Science, University of California, Santa Barbara (fall 2005 - spring 2009)

- Received outstanding student award (highest GPA in computer science class of 2009)
- Received high honors and distinction in the major

INDUSTRY EXPERIENCE

Director of Artificial Intelligence, **3co** (2020 - present)

- Designed and implemented surface reconstruction pipeline for our collected temporal 3D point cloud data
- Current work: developing planning algorithm for autonomous robotic 3D scanning in simulation

Research Scientist, **e-Cortex** (2017-2019)

- Helped design machine learning pipeline for autonomous detection and localization of ocean mines from submarine sonar and video data
- Developed fast sonar data alignment algorithm as preprocessing step in machine learning pipeline

Software Engineering Intern, **Google** (summer 2014)

- Improved Google Flights ranking algorithm
    - 0.6% (live) ranking improvement by expanding user-segmented regression feature set
    - 1.21% (test) improvement by addressing weakness I identified via data mining and formal analysis
- Received peer award for end-of-summer presentation

Software Engineering Intern, **Google** (summer 2013)

- Performed data mining to develop and test hypotheses for typical causes of Google+ user inactivity
- Designed, implemented, and tested Google+ user activity prediction algorithm

Software Development Engineer in Test Intern, **Microsoft** (summer 2008)

- Developed web application in C#/ASP.NET for automated testing of an Office security feature
- Tested an Office security feature, focusing on penetration testing

SELECTED CODING EXPERIENCE

Scala, Java, C/C++, Python, Matlab, R, SQL, C#, ASP, PHP, Play, Javascript, HTML, css

PUBLICATIONS

Please see my Google Scholar page at https://scholar.google.com/citations?user=enf6ghUAAAAJ&hl=en