

AHSAN I. NAWROJ

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EDUCATION

Yale University: *Ph.D. Candidate in Robotics* (2017) 2012 – Present

- Completed *M.Phil.* (2014) and *M.S.* (2013) with Honors in 8 courses (out of 10 total courses)
- Designing small robots that connect to create large mobile structures operating in extreme weather and outer space
- Developed a novel method of increasing conductivity of rubber to make flexible solar panels and temperature sensors
- Manufactured samples of the rubber in lab with over 1 billion times higher conductivity than traditional rubber
- Publications: 5 first-author articles (out of 7 total); 2 in ICRA and IROS (top peer-reviewed conferences in the field)

Lafayette College: *B.S. in Electrical and Computer Engineering (with Honors), Minor in Computer Science* 2008 – 2012

- *Summa cum laude*, GPA: 3.89 (out of 4.00)
- Honors thesis: Designed and demonstrated remote control of a robot using human thought
- Publications: 2 first-author articles (out of 5 total); 1 patent

Test Scores: *GRE*: Math (800), Verbal (590), Analytical (4.5); ***SAT*:** Reading (760), Math (750), Writing (730)

WORK EXPERIENCE

Pro-bono Consultant, *Yale Graduate Consulting Club* 2016

- Assisted a Yale startup in a team of 5 for a 12-week engagement (~10 hours per week) to develop a go-to-market strategy for a smartphone app that enhances Wi-Fi and cellular data-use performance
- Analyzed market using surveys and interviews to identify key target customer segments and the corresponding demand

Teaching Fellow, *Yale Mechanical Engineering Department* 2014 – 2016

- Developed and implemented a new lab exercise to append to the course curriculum
- Taught hands-on mechanical design classes to ~30 students per semester for 3 semesters
- Advised a large number of students individually on career choices, both during and beyond the semester

Research Robot Developer, *Yale Social Robotics Laboratory* 2014 – 2015

- Led a team of 3 to upgrade a commercial toy to a software-controllable robot for use in social interaction experiments aimed at building social skills in children on the autism spectrum
- Released design changes and conversion toolkit as open-source hardware that has been used by 5 research groups
- Directed coaching sessions for ~15 collaborators from MIT and USC (3 papers published by others using this system)

Prototype Researcher, *Sonomed Inc. and Dr. Richard Koplin, M.D.* 2009 – 2011

- Developed a prototype for an ultrasonic eye-imaging probe conceptualized by Dr. Koplin
- Obtained a patent for the developed prototype design
- Collaborated with lawyers to hand over designs to Sonomed Inc. for commercialization (reaching market by 2017)

LEADERSHIP ROLES

Case Team Leader, *Yale Graduate Consulting Club (YGCC) Case Competition* 2016

- Led a team of 5 graduate students in synthesis-driven analysis and effective communication
- Developed a growth strategy for an electronics retailer competing with online stores (~30% rate-of-return)

President, *Lafayette College Reeder Street Fellows* 2011 – 2012

- Led a special-interest off-campus house of 12 residents through weekly campus-wide intellectual discussions
- Revitalized outreach for the house (discussion attendance: 20 – 30 per week; campus-wide recruitment: ~50% increase)
- Managed \$8,000 annual budget for trips to local destinations of history and interest

HONORS & AWARDS

- Albert P. Gagnebin Fellowship, *Yale University*; Award: \$64,950 2014 – 2015
- Best Hardware Demonstration (Finalist out of 50+ submissions), *SMASIS conference*; Award: \$400 2014
- Honor Societies: Phi Beta Kappa, Tau Beta Pi, Sigma Xi, Eta Kappa Nu 2012

SKILLS & INTERESTS

- **Languages** English (Fluent), Bengali (Native), Spanish (Conversational)
- **Computer** MS Office suite, Adobe suite, Web development platforms, 10+ Programming languages
- **Interests** Designing and making DIY gadgets such as custom lamps, playing and teaching squash to beginners, listening to podcasts on design, innovation and surrealism