Kushagra Gupta

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Education

University of Illinois at Urbana-Champaign, BS. Electrical Engineering, Sophomore, GPA: 4.0/4.0   *Champaign, Illinois, 2016-2019*
     Current Chancellor's Scholar, Engineering James Scholar, and recipient of the Provost Scholarship

Illinois Mathematics and Science Academy, GPA: 4.0/4.0   *Aurora, Illinois, 2013-16*

Experience

ParkWhiz LLC, Software Development Intern   *Chicago, Illinois, 2015-16*
     Built a back-end analytics platform to monitor customer actions on the ParkWhiz site and mobile applications
     Utilized Go, Ruby, SQL, and Docker to write and deploy the service to ParkWhiz servers
     Determined ways to use this data to make informed business and marketing decisions

Harvard University's Whitesides Research Laboratory, Student Researcher   *Cambridge, Massachusetts, 2015*
     Developed prototypes for pneumatically-actuated walking robots built entirely out of "soft" components
     Designed and assembled an Arduino-based platform on which to automate robot actions
     Conducted research regarding the applications of electromagnetically-induced oscillation in robotics

MyQuickmart LLC, Website Development Intern   *Ashburnham, Massachusetts, 2014*
     Implemented custom functionality on the MyQuickMarket site using HTML, Javascript, CSS, and the Shopify API
     Associated location information with customer accounts, streamlining the checkout and delivery process

Skills

Languages and Frameworks

Experienced: Java, Javascript, HTML, Ruby, Go, SQL, C++, Arduino, CSS, Python
Familiar: Android, MATLAB, Wolfram Language, Google App Engine, LC3 Programming

Software

Git, SVN, Eclipse, Atom, Adobe Photoshop/Lightroom/Premiere, Inkscape, Microsoft Office, Verilog, LaTeX

Projects

Applications of Electromagnetically-Induced Oscillation in Robotics   *Whitesides Research Laboratory, 2015*
     Invented a method to harness the vibrations of an oscillating magnet in order to achieve locomotion
     Created and implemented an algorithm to track a magnet's position in 3D space within an arrangement of electromagnetic coils

Artificial Intelligence Research Using Heuristic Analysis   *Illinois Mathematics and Science Academy, 2014-15*
     Designed a simulation to test player actions in risk-reward scenarios
     Implemented a series of artificial intelligence algorithms that utilized heuristics to analyze a game-state tree which achieved a 90% win rate against humans

Extra-Curricular Involvement

Office for Technical Consulting Resources, Consultant   *University of Illinois at Urbana-Champaign, 2016*
     Developed business strategy and technical solutions to solve real-world problems for companies ranging from local start-ups to Fortune 500 corporations

Indian Student Association, Freshman Representative   *University of Illinois at Urbana-Champaign, 2016*
     Organized events to promote Indian culture and built a social media presence with more than 3,000 followers

Achievements & Awards

International High School Mathematical Contest in Modeling, Outstanding Winner for Two Consecutive Years   *2015, 2016*
     Earned the highest distinction in the International High School Mathematical Contest in Modeling, top 9 of 700 teams

Pending Publication in Soft Robotics Research   *2015*
     Co-authoring a paper titled, "Exploiting Asymmetry in Solf-Bodied Robots for Locomotion," conducted at Harvard University's Whitesides Research Laboratory