JIAHAO LI

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EDUCATION

University of California, Los Angeles (UCLA) Sep. 2017 - Present
Ph.D. Student in Mechanical Engineering
Shanghai Jiao Tong University, China (SJTU) Sep. 2013 - Jun. 2017
B.S. in Naval Architecture and Ocean Engineering

PUBLICATIONS

[1] **Jiahao Li**, Jeeeun Kim, Xiang 'Anthony' Chen. Robiot: A Design Tool for Actuating Everyday Objects with Automatically Generated 3D Printable Mechanisms. *Proc. ACM UIST 2019. Acceptance Rate: 24.4%.*.

PROFESSIONAL EXPERIENCE

PARC, A Xerox Company Jun. 2019 - Sep. 2019
Research Intern, Mentored by Erva Ulu and Nurcan Ulu *Palo Alto, CA*

- Developed a curvy zigzag support structure solving the problem of sagging on the edges.

DMAI. Inc Jun. 2018 - Jun. 2019
Hardware Engineer *Los Angeles, CA*

- Developed two educational robots prototypes. The first is a fix-based goose-like robot aiming to interact with toddlers by playing the game *Simon Says*. The second is a biped robot aiming to supervise preschoolers under absence of parents
- Implemented a visual tracking function that enables the walking robot to keep eye on human while walking
- Took part in the system integration in Robotic Operating System *(ROS)*
- Designed outer look of the robots and inner structures to integrate all hardware

SELECTED PRESS COVERAGE

Robiot Is a Design Tool That Generates Mechanisms to Motorize Everyday Objects Nov. 2019
Hackster News

SELECTED PROFESIONAL PROJECTS

Robiot: Enabling Customizable Interaction with Legacy Physical Devices Sep. 2018 - Apr. 2019
Supervised by Dr. Xiang 'Anthony' Chen

- Developed a library of fabricable mechanisms to actuate various everyday objects for different physical tasks
- Built design tools empowering non-technical users to rapidly prototype functional components for custom IoRTs

Solid Freeform Fabrication – EcoRoll Jan. 2018 - Apr. 2018

- Built a prototype called *EcoRoll* which aims to solve the problem of waste of toilet paper by applying a reduction gearbox onto the mount of toilet paper limiting the amount of paper generated at a time using Solidworks
- 3D printed all the components using several different types of rapid prototyping such as Fused Deposition Modelling and Stereolithography

Solving a Rubik's Cube with Denso Robotic Arm with Color Recognition Apr. 2018 - Jun. 2018

- Developed a color recognition software using camera mounted on the robotic arm in LabVIEW that enables solving the best solution for the Rubik's cube
- Designed 12 different actions of the Denso Robotic arm by offline computation in MATLAB to solve the Rubik's cube automatically

TECHNICAL SKILLS

Programming: C/C++, MATLAB, Python, JavaScript, HTML
Professional Tools: Solidworks, TensorFlow, ROS, LabVIEW, LaTeX