Zihao Lin
ECE Student

🛈 13 August 1999

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 github.com/robinlin99

Education

B.S Electrical and Computer Engineering | Cornell University | Class of 2022 | Authorized to Work in US Under CPT | Transferred from University of Toronto

Skills

Languages: C/C++, MATLAB, SQL, R, Python

WebDev : HTML, CSS, JavaScript, React, Bootstrap, Node.js, AJAX, Socket.io

Design : AutoCAD, Solidworks, Autodesk Fusion 360

ML & CV : Tensorflow, OpenCV

Extra-Curricular

General Member @ Cornell ACSU | 2019 - Present
- Cornell Association of Computer Science Undergraduates
- Participate in workshops and seminars

Mechanical Design Engineer @ UTRA RoboSoccer Club | 2017 - 2019
- University of Toronto Robotics Association
- Designed the first prototype of the arm component of humanoid robot soccer player
- Team qualified for international RoboCup 2018 in Montreal, CA

Electrical Hardware Engineer @AUToronto | 2017 - 2018
- Member of University of Toronto Self-Driving Car Team
- Won 2018 GM AutoDrive Challenge in Yuma, Arizona

Hacker @ Major League Hacking | 2017 - Present
- Attended three hackathons in North America: Hack the North 2017, HackPrinceton 2018, HackMIT 2018

Experience and Internships

May-Aug '19 Research Intern Department of ECE @ UofT | Toronto, ON
Four-wave Mixing Numerical Gain Solver in Semiconductor Devices with MATLAB

May-Aug '18 Research Intern Department of Physics @ NUS | Singapore
Optical Characterization of Nitrogen-vacancy Centers in Nanodiamonds Using Time-resolved Photoluminescence Spectroscopy

May-Aug '17 Research Intern Department of Physics @ UofT | Toronto, ON
Conducted research on the fabrication process and feasibility of carbon nanotube thin films as cathode and electrocatalyst of Zinc-Air batteries

May-Aug '17 Research Intern York University | Toronto, ON
Developed a foot-mounted modular inertial navigation system implementing a zero-velocity update algorithm (ZUPT) on the Arduino UNO

Projects

Aug-Sept '19 ChatUp | Github
-Created a multi-user real-time web chat application with Node.js, Socket.io, HTML/CSS, and Bootstrap

Aug-Sept '19 Personal Portfolio Website | Website
-Created a personal portfolio website using HTML/CSS, Bootstrap, and Font-Awesome

July-Aug '19 Lane_Detection | Github
-Developed a tool that annotates road lanes in videos using Python, OpenCV, Matplotlib, and Numpy

June-July'19 Face_Detect | Github
-Developed a web application that can perform facial landmark detection and emotion categorization from the user's video stream
-Built with JavaScript, HTML, and face-api

Apr-May'18 Chess Player | Github
-Developed an automated chess player in Python that evaluates potential moves using a k-ary tree data structure

Achievements

May '19 NSERC Undergraduate Student Research Awards
-The Natural Sciences and Engineering Research Council of Canada (NSERC) Student Research Awards are intended to stimulate interest in research in engineering and to encourage students to undertake graduate studies
-Conducted research in photonics @ The Helmy Group

Sept '19 Best Use of Docusign e-Signature API @ HackMIT
-Awarded for our project "Sign-Off", a text summarization software for legal documentation

May '17 The Rensselaer Medal | Rensselaer Polytechnic Institute
-This merit scholarship, with a value of $25,000 per year, is guaranteed for four years for each medalist who is accepted and enrolls at RPI

Coursework

Core Signals and Information, Electromagnetic Fields and Waves, Intelligent Physical Systems, Digital Logic and Computer Organization, Introduction to Programming, Data Structures and Algorithms, Ordinary Differential Equations, Fluid Mechanics and Vector Calculus

Electives Fundamentals of Accounting and Finance, Human Development: Infancy and Childhood, Freshman Writing Seminar: Word and Image