Simon Yu

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EDUCATION

University of Illinois   Urbana - Champaign, IL
Bachelor of Science, Computer Engineering   May 2019
Minor: Computational Science and Engineering   *GPA: 3.81/4.00*

RESEARCH

Trajectory Estimation for Geo-Fencing of Small-Size Fixed-Wing UAVs   Urbana - Champaign, IL
Undergraduate Senior Research & Senior Thesis   May 2018 - May 2019
- Contributed to theoretical derivation and hypothesis testing of the geofencing model.
- Designed software framework that implements the model in simulations and real flights.
- Revised existing autopilot framework for the implementation of the geofencing systems.
- Submitted paper to 2019 International Conference on Robotics and Automation (ICRA).

Helicopter Autopilot Systems   Urbana - Champaign, IL
Undergraduate Research & Honor Project   Oct 2016 - Dec 2017
- Resolved servomotor mapping and channel mixing for the helicopter rotary swash plate.
- Implemented PID controller for position, velocity, attitude and angular rate of the aircraft.
- Applied path planning and following algorithms for trajectory tracking and 3D waypoints.
- Acquired knowledge of advanced C / C++ programming and software engineering skills.

EXPERIENCE

Undergraduate Teaching Assistant of ECE 110   Urbana - Champaign, IL
Department of Electrical and Computer Engineering   Aug 2016 - Dec 2016
- Assisted graduate Teaching Assistants during lab sessions.
- Conducted lab instructions and demonstrations to improve students' understanding of circuits.
- Provided answers to questions raised by students regarding lab assignments and lectures.

Undergraduate Teaching Assistant of CS 101   Urbana - Champaign, IL
Department of Computer Science   Feb 2016 - May 2016
- Assisted graduate Teaching Assistants during lab sessions.
- Conducted lab instructions and activities to improve students' understanding of python.
- Provided answers to questions raised by students regarding lab assignments and homework.

Site Manager of Residential Technology Services   Urbana - Champaign, IL
Division of University Housing   Aug 2016 - May 2017
- Provided technical solutions to residents of the University Residential Halls.
- Maintained general operations of residential computer labs across university campus.
- Supervised status of printers, computers and other general equipment in the computer labs.

ACHIEVEMENT

Member of HKN and Tau Beta Pi Illinois Alpha Chapter   Apr 2018

Indira Gunda Saladi Engineering Research Scholarship   Oct 2018
- Awarded yearly to one student involving in research projects with independent thinking.

Bruce C. Mather Memorial Scholarship   Sep 2017
- Awarded to students dedicated to completing rigorous work of earning an engineering degree.

Illinois Engineering Achievement Scholarship   Apr 2017
- Awarded to students with a 3.0 GPA and above and very high performances in school work.

College of Engineering James Scholar Program   Jan 2017
- Accepted students with a 3.5 GPA and above and participated in honor projects and activities.

College Dean's List of Academic Excellence   Jan 2016 - Mar 2018
- Awarded to students with a top 20 percent GPA in the college.