University of São Paulo - Automation Department in School of Engineering

São Paulo, Brazil

Application due: January 21, 2020

UVA Independent Global Internship

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UVA GLOBAL INTERNSHIPS

Applications due: January 21

University of São Paulo – Automation Department in School of Electrical Engineering

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Automation Department of the Electrical Engineering School at the University of São Paulo (USP), Brazil, has research and development activities centered on process automation, computer vision, machine learning, data analytics, Internet of Things, Smart Cities, Track and Trace, Cyber-physical Networks and other up-to-date topics. The research groups are pioneers in several research topics and have strong partnership with industry and intense cooperation with foreign institutions.

This internship is offered in affiliation with the Commonwealth Center for Advanced Logistics Systems (CCALS), an applied research center based in Central Virginia that bridges the gap between fundamental research that is typically performed at universities and product development that is routinely performed by companies.

Internship title:

- Systems Analysis and Integration Intern; Logistics Systems Analysis Intern

UVA Faculty Partner:

- James Lambert

Description of position:

- The research groups work closely with many diverse organizations and there are a great many ways in which students can potentially contribute to the lab in the summer of 2020.
- Areas for prospective engagement include:
  - o systems analysis and integration
  - o data analysis
  - o developing methodology, algorithms, and code to solve problems posed by various projects
  - o automating systems

- o   taking initiative to develop a multitude of projects independently
  - o   attending meetings and presentations with clients as well as academics in the field
  - o   proofreading texts for publishing
- **What can an intern expect to learn?** This is a great opportunity to learn more about the functionality of servers and building projects that can be implemented in the real world, working across the internet. The student intern will experience the exchange of culture and knowledge in the research team and will gain understanding of how research projects develop and are carried out.

Preferred qualifications:

UVA requirement: All candidates must be in good academic and disciplinary standing.

- An applicant must be a rising 4th year undergraduate or graduate student interested in computer science, systems engineering, or other related field. Preference will be given to candidates with a background in systems analysis and integration, automation technologies, management processes, computer graphics, enterprise systems, and/or object detection and tracking. Previous experience working on a research team would be an asset.

- Interns must be flexible, self-directed, and possess a strong entrepreneurial spirit. The successful intern will be ready to make the most out of this highly independent internship, and thus he/she must display good time management, be outgoing, and always demonstrate willingness to learn new material. He/she must also be interested in learning about how research is conducted in non-US settings and about Brazilian higher education.

Language:

- English is suitable for work in the lab. Knowledge of Portuguese (at any level) is highly recommended to facilitate social interactions and life in the city.

Dates and timings:

- (Northern) Summer 2020, exact dates between mid-May to mid-August to be determined
- 10-12 weeks

Number of positions offered:

- Up to 5

Support:

- Members of the Automation Department will be happy to provide recommendations for students to find safe and secure housing near the USP campus.

Pre-internship preparation requirements:

- In the Spring semester before their internship, interns will be expected to have an interview with the project coordinator at one of the research groups inside the Automation Department.
- Students who have not yet studied Portuguese will be required to attend a workshop on language self-study offered by the Language Commons/Global Internships and demonstrate progress developing communicative competence in Portuguese.
- Selected students will need to work closely with UVA Global Internships during the Spring semester to gather necessary paperwork to establish their visiting student status at the Electrical Engineering School of the University of São Paulo.

Additional information:

- If under their care, students must have their parents/guardian's permission to apply for this position before submitting an application.

Special application instructions:

- Upload an unofficial copy of your transcript along with your other application materials
- Candidates may be called for interviews with Professor James Lambert

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Previous interns' reflections:

Overall, I found my experience in Brazil to be the best combination of relevant work experience, and meaningful cultural experiences. I made lots of local friends while I was there and learned a lot about Brazilian culture. It was truly the most hospitable and welcoming country I have ever experienced!

~ JESSICA LIN (Summer 2016)