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Autopilot - Systems Software Engineer Intern (Fall 2020)

BUILD THE FUTURE

Job Category Engineering & Information Technology

Location Palo Alto, California

Req. ID 62886

Job Type Full-time

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Internship Program at Tesla

The University Recruiting Team is driven by the passion to recognize emerging talent. Our year around program places the best students in positions that they will grow both technically and personally through their experience working closely with their manager, mentor, and team. We are dedicated to providing an experience that allows for the intern to experience life at Tesla by giving them projects that are critical to their team's success.

Instead of going on coffee runs and making copies, you'll be seated at the table making critical decisions that will influence not only your team, but the overall achievement of Tesla's mission.

Location

Palo Alto, CA

About the Team:

The Systems Software Engineer Intern will apply his or her technical skills to a variety of Autopilot's system components & foundational code. The nature of the role means that the code you will write, debug and maintain will almost always connect with a variety of other components. You will be building the foundation for the autonomy development teams, track and optimize performance and framerate across the stack, assist in writing system tools, and evangelize best software practices for the better of Autopilot. You will write tests and integrate with our evaluation pipeline, to ensure the system and functional stability of our stack.

Responsibilities

- Write, debug, and maintain robust C/C++ software to the entire Autopilot software stack. This could involve code the following: contributing to our high-framerate Camera & Vision stack; writing GPU kernels; designing and implementing low memory footprint image compression libraries; implementing high-performance inter-process communication data buffers; improving/extending our image & raw data logging/telemetry code; or making our evaluation/replay software more stable and performance
- Optimize hardware resources usage, leverage custom hardware components where appropriate

Requirements

- Experience programming C/C++ software
- Currently enrolled in University focused on the following: Computer Science, Engineering, Robotics, Physics, similar field(s) of study, or equivalent practical knowledge
- Proficient developing software for embedded targets
- Nice to have: Experience with performance software design, object-oriented C++ and/or hardcore lower-level C code
- Nice to have: Experience or familiarity with Computer Vision & related software concepts
- Nice to have: Experience with any one of the following: imaging software, Cuda/OpenCL, SIMD, multithreading, Linux system software (posix etc.), computer vision

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About Tesla

Tesla is accelerating the world's transition to sustainable energy. We design, manufacture, sell and service the world's best solar technology, energy storage systems, and electric vehicles, providing customers the opportunity to generate, store and consume energy entirely sustainably.

Tesla is committed to hiring and developing top talent from around the world for any given discipline. Based in California, Tesla's workforce spans across four continents. We work to build an inclusive environment in which all people, regardless of gender, race, religion, or background, can come to do their best work.

Our world-class teams operate with a non-conventional philosophy of inter-disciplinary collaboration. Each member of the team is expected to challenge and to be challenged, to create, and to innovate. We're tackling the world's most difficult and important problems—and we wouldn't succeed without our shared passion for making the world a better place.

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Tesla is an Equal Opportunity / Affirmative Action employer committed to diversity in the workplace. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, age, national origin, disability, protected veteran status, gender identity or any other factor protected by applicable federal, state or local laws.

Tesla is committed to working with and providing reasonable accommodations to individuals with disabilities. If you need a reasonable accommodation because of a disability for any part of the employment process, please call [510-602-3960](tel:510-602-3960) or send an e-mail to accommodationrequest@tesla.com and let us know the nature of your request and your contact information.

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