Embedded Systems Developer

Who we are:

Geotab is a global leader in IoT and connected transportation and certified "Great Place to Work." We are a company of diverse and talented individuals who work together to help businesses grow and succeed, and increase the safety and sustainability of our communities.

Geotab is advancing security, connecting commercial vehicles to the internet and providing web-based analytics to help customers better manage their fleets. Geotab's open platform and Marketplace, offering hundreds of third-party solution options, allows both small and large businesses to automate operations by integrating vehicle data with their other data assets. Processing billions of data points a day, Geotab leverages data analytics and machine learning to improve productivity, optimize fleets through the reduction of fuel consumption, enhance driver safety and achieve strong compliance to regulatory changes.

Our team is growing and we're looking for people who follow their passion, think differently and want to make an impact. Join us for a fulfilling career with opportunities to innovate, great benefits, and our fun and inclusive work culture. Reach your full potential with Geotab. To see what it's like to be a Geotabber, check out our blog and follow us @InsideGeotab on Instagram, Twitter or Facebook.

What you'll do:

As an Embedded Research And Development Engineer your key areas of responsibility will be reverse engineer vehicles and various automotive accessories to create documentation and algorithms. Implement new logic into our device firmware, programming primarily in C. You will need to work closely with the Hardware Team to design and test the next generation of embedded devices. To be successful in this role you will have a keen eye for details to consistently adhere to coding standards and perform peer QA and code reviews. Being inquisitive and constantly looking for a new technical challenge or to use a new tool will also contribute to your success. In addition, the successful candidate will have strong communication skills, in their technical documentation, collaboration with teammates, and with providing technical support to other Geotab teams. The ideal candidate should be highly technical with an interest in hacking computers, reverse engineering and exploring digital systems. Automotive background is not strictly required, but a strong computer networking and some electronics hardware experience background will be an asset.

How you'll make an impact:

- Perform firmware development using C as per the development standards

- Perform quality assurance by doing peer review, ensuring coding standards are followed and looking for logic errors and other bugs

- Keep up-to-date documentation for all your areas of responsibility

- Determine and document various vehicles' electrical architecture and design

- Connect and capture data from vehicles' internal serial networks

- Create and/or modify any custom software tooling required to support the reverse engineering process

- Reverse engineer serial protocols

- Implement new communication protocols

- Implement new firmware functionalities

- Design new features based on internal and external requests

- Collaborate in the specification and design of new hardware products

- Create new firmware for new hardware devices

- Implement new protocols in the communication server (C++)

What you'll bring to this role:

- Bachelor's degree in Electrical, Mechatronics, Computer Engineering or related

- 3+ years experience in embedded development using C

- Fluent spoken and written English

- Linux advanced usage and programming knowledge

- GIT experience

- Knowledge of serial networking concepts

- Strong hacker attitude

- C++ experience an asset

- Jira experience an asset

- Experience with automotive networking technology (CANbus) an asset

- Familiarity with engine protocols and OEMs an asset

- Experience with modems, GPS and accelerometers an asset

- Experience with encryption or cryptographic modules an asset

- Hardware knowledge an asset

How we work:

At Geotab, we understand that the world is always changing and that we need to change with it. Geotab has adopted a hybrid model for working, including a flexible work from home program, with the opportunity to work in our safe, clean offices. When working from home, you are required to have a reliable internet connection with at least 50mb DL/10mb UL. Remote work is supported with cloud-based applications, collaboration tools and asynchronous working. The health and safety of employees are a top priority. We encourage work-life balance and keep the Geotab culture going strong with online social events, chat rooms and gatherings. Join us and help reshape the future of technology!

Geotab encourages applications from all qualified candidates. Geotab is committed to accommodating persons with disabilities throughout the interview, selection and employment process. If you require accommodation at any stage of the application process or want more information about our accommodation policies and practices, please contact us at careers@geotab.com. Click here to learn more about what happens with your personal data.