bimotal

Bimotal Embedded Software Engineer Intern Job Description Summer 2024

Bimotal Application Submission

The Company

Bimotal was founded in 2019 to develop innovative micro-electric powertrains for right-sized personal vehicles. We are a group of Tesla, startup, and bike industry alumni working towards our mission of reducing barriers to car-free mobility. In addition to our direct-to-consumer product, Elevate, an easily retrofittable and removable powertrain that converts disc-brake bicycles into e-bikes, we have also partnered with vehicle OEMs (bikes and other micromobility vehicles) to provide them with high-performance powertrains specifically designed for their needs. Bimotal is positioning itself as a technology company with the aim of making the best microelectric powertrains in the world, and eventually, the best personal-sized electric vehicles. Come join us in building the future of transportation.

The Job

This is a paid position. As an Embedded Software Engineering Intern at Bimotal, you will gain hands-on experience writing world-class software for Bimotal's innovative electric powertrains. You'll join and learn from a driven engineering team focused on shattering the status quo for small powertrain performance on the way to transforming mobility - through products such as ebike motors all the way to vertically-integrated micromobility transportation systems. Bimotal is a fast-growing startup; be ready to take ownership of projects with real stakes, work independently, and tackle unfamiliar and challenging problems.

Responsibilities

- Deliver high-quality C code for motor control, battery management, and/or wireless communication embedded systems
- Implement test code including unit and hardware-in-the-loop tests
- Assist in bring-up and debug of embedded hardware; provide feedback to hardware team
- Participate in code reviews and version control processes
- Thoroughly document your work

Qualifications

- Strong knowledge of C/C++
- Project experience writing firmware for one or more embedded systems, either bare-metal or with an RTOS
- Experience with circuit fundamentals and interfacing components
- Familiarity with embedded communication protocols including I2C, SPI, and CAN

- Experience with laboratory equipment including oscilloscopes and logic analyzers
- (Preferred) Experience taking on core technical responsibilities as part of a multidisciplinary student team
- (Preferred) Familiarity with source control tools such as git
- (Preferred) Strong knowledge of Python
- (Preferred) Experience designing and bringing up circuit boards
- (Preferred) Familiarity with the build process for embedded firmware (cross-compilation)

Logistics

Please fill out a Bimotal Application Submission to apply for this position. Our office is in a beautiful location and is walking distance to many great lunch spots (2 blocks to our favorite burrito spot, Picante), Amtrak, and BART.