Internship Opportunities

ShopBot Tools, Inc. is seeking dedicated, self-starting individuals for exciting internship opportunities in its engineering development organization.

Roles Available

Software Engineering Development

Ideal candidates are motivated, self-starting individuals with an interest in web development for IoT applications. Relevant experience is anything to do client-side web development, and projects are specific in focus, but open-ended in actual specifications. Basic engineering discipline is an absolute necessity. Quick learning and fast-on-ones-feet thinking is strongly recommended. Experience with html, javascript, css, modern web frameworks/technologies computer architecture, networking, database design, linux, good design sensibility, and technical writing are highly encouraged.

Projects

Projects for a software candidate mainly involve writing client and server side web applications for a next-generation manufacturing system, and include but are not limited to:

- Customer-facing single purpose applications for performing tool maintenance and simple tasks
- Internal applications to support manufacturing activities which include:
    - reading manufacturing orders from a database and coalescing data from those orders with instructions to control automated robotic manufacturing systems
    - reading manufacturing orders from a database and transforming that data into checklists that are consulted in final packing and assembly
    - conducting production tests on assemblies in various stages of production - collecting and analyzing test data and reporting it to various other software systems
- Demonstration and promotional apps that showcase novel features of next-generation manufacturing systems, including unique workflows for generating manufactured parts from data supplied by the customer, pulled from the web, or generated algorithmically from parameters.
- Building and testing of customized low-level embedded linux components to support next generation manufacturing systems
- Collecting interesting manufacturing and business data and analyzing/summarizing/visualizing it for general consumption

Electrical Engineering Development

Ideal candidates are motivated, self-starting individuals with an interest in the principles and practice of designing and manufacturing electronic assemblies for real world products in a manufacturing environment. Technical writing and communication skills and good personal skills are essential. Basic understanding of electrical and electronic systems with a focus on automation is a plus.

Projects

Projects for the electrical engineering candidate are mainly oriented around improving, documenting and testing existing designs, but opportunities for doing new design work exist for particularly motivated/talented individuals.

- Test and design test fixtures for a number of electronic systems used in manufacturing automation
- Document existing procedures for assembling and testing electronic systems used in manufacturing automation
- Contribute to new designs of automated manufacturing systems
- Contribute to the design of kits, aimed at hobbyists and small manufacturers

Mechanical Engineering Development
Ideal candidates are motivated, self-starting individuals who are detail oriented and can manage the complexity of mechanical design and documentation in a fast paced manufacturing environment.

<u>Projects</u>
Projects for the electrical engineering candidate are mainly oriented around improving, documenting and testing existing designs, but opportunities for doing new design work exist for particularly motivated/talented individuals.

- Test and design fixtures for a number of mechanical assemblies, producing test documentation as appropriate
- Shadow production engineers and generate production documentation from experiences putting assemblies together
- Review and edit drawings and documentation for consistency, clarity, and correctness
- Design and fabricate actual parts with automated manufacturing systems to demonstrate their capability and test essential performance

Employment Details:
- Full-time paid internship (30-40 hours weekly); 3-month/6-month opportunity.
  Will work with intern to provide academic credit if applicable.
- Reports to Director of Engineering and Development.
- Work location: Durham, NC
- On the job training will provide orientation to the company's products, services, and sales process.
- May include 5-10 days of travel

About ShopBot Tools, Inc.
We design & manufacture CNC (computer numerically controlled) routers used in professional manufacturing, DIY making, and educational settings. Our mission is to make the empowering nature of digital fabrication technology accessible and affordable to anyone with the desire to make. Some 8,000 ShopBot Tools are at work around the world. ShopBot Tools, Inc. is an equal opportunity employer.
www.shopbottools.com

Interested candidates, please send your cover letter and resume to HR@shopbottools.com
No calls please.

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