



Evolution Robotics

Employment Opportunity Profile

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Robotics and Vision Engineer

Evolution Robotics
Pasadena, California

Position Summary as of May 3, 2010

Title: Robotics and Vision Engineer

Reports to: VP of Research and Development

The Company:

Evolution Robotics, Inc. is a robotics company that is developing break-through technologies that are revolutionizing robotics for the mass market. The recent convergence of low-cost mobile computing, wireless communication, and sensing technologies has not only made the development of mobile robotic products possible, but also economical for mainstream usage. Evolution Robotics develops breakthrough solutions for making machines sense and act autonomously. We partner with consumer electronics companies to augment the capabilities of their products, such as the Sony AIBO(r) entertainment robot or WowWee robotic toys, or create entire new robotic products such as the Mint robotic mop and duster (www.mintcleaner.com).

Evolution is a recognized leader in industrial and academic communities. The company has assembled a world-class management team composed of leading robotics experts and consumer products business leaders to make the company's vision of providing useful robots at affordable prices a reality.

The Evolution Robotics team operates in a highly dynamic and very collaborative environment where the flow of ideas is encouraged from all parts of the team. The team of extremely talented engineers and scientists at Evolution has created a unique, highly stimulating, and fun work environment. This team challenges the status quo in technology and pushes the envelope on what may seem impossible.

Evolution Robotics is an operating company of Idealab!, a technology incubator known for having started many successful companies including Overture, CitySearch, and eSolar. We are located in beautiful and sunny Pasadena, in

Southern California. Hosting scientific institutions like the California Institute of Technology and the Jet Propulsion Lab, and national events like the annual Tournament of Roses, the city is considered the main cultural center of the San Gabriel Valley.

Position Purpose:

Design, implement, test, and document robotics and vision algorithms in C/C++ on Linux/Windows and on embedded platforms. The candidate will participate in the creation of the next generation of consumer robotics products developed at Evolution Robotics.

The position's responsibilities also include validation and characterization of the products developed at Evolution Robotics including embedded solutions for vision and navigation, robotics components, and hardware. The position involves a substantial portion of "hands-on" work and requires an individual able to work independently with minimal supervision.

Requirements:

- Hands-on experience developing robotics or vision systems.
- Extensive experience with C/C++ (working knowledge of computer architecture and operating systems).
- Working experience in both Linux and Windows.
- Experience validating complex systems involving hardware, software, and mechanical components.
- A solid engineering background with hands-on design and development experience.
- Excellent verbal and written communications skills.
- Strong problem solving and analytical skills.
- Ability to learn quickly.
- **Minimum Degree:** MS in Computer Science, Computer Engineering, Electrical Engineering, or related field.

Nice to have:

- Ability to build/assemble/modify electronic assemblies or robots into various configurations for test purposes.
- Understanding of and experience with any of the following: behavior-based control, navigation, path-planning, obstacle avoidance, SLAM, fuzzy logic, estimation and control.
- Understanding of and experience with any of the following: object recognition, structure from motion, 3D reconstruction, ego-motion estimation, feature extraction and matching, face recognition.
- Hands-on design and development experience of software and hardware products.
- Experience developing embedded systems.
- Experience validating consumer or robotics products.

INTERESTED CANDIDATES SHOULD SUBMIT THEIR RESUME AND SALARY HISTORY TO: careers@evolution.com

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