



Position ID	PhotonQ-VAN
Type of position	Process Development Engineer
Subject Area	Engineering
Type of institution	Start-up
Start date	Now
Type of contract	Permanent Contract
Contact	Philipp-Immanuel Dietrich
Location	Vanguard Automation GmbH, Karlsruhe, Germany
Background	Vanguard Automation is a fast-growing high-tech start-up company offering machines and processes for harnessing the vast potential of 3D lithography in the field of photonic integration and packaging. To complement our development team, we are looking for an experienced professional with broad technical interest and background in the field of optics, optoelectronics or microtechnology.
Role	You will develop, implement and verify novel methodologies and processes to create optical interconnects by 3D lithography. This comprises the complete span from conceptualization to verification and optimization of new fabrication processes as well as the detailed investigation of the underlying physical effects. For your work you will closely collaborate with the software- and application development teams, ensuring successful adoption of our technology and machines by our customers.
Responsibilities	<ul style="list-style-type: none">▪ Developing new fabrication methodologies for micro-optical elements on our 3D lithography platform▪ Investigation and simulation of new fabrication strategies and assessing the feasibility for production▪ Establish test procedures and analytics for evaluation and quality control of optical assemblies and elements▪ Transferring new processes towards our customer together with the application development team
Your profile	You should have a Master or PhD degree in Optics, Electrical Engineering, Physics or a comparable qualification. Preferred candidates are used to work independently within a multi-disciplinary team and contribute one or more of the following skills and experiences: <ul style="list-style-type: none">▪ Experience in design, fabrication, and testing of integrated optical components▪ Development of fabrication processes for photonic devices▪ Experience with simulation of photonic devices▪ Testing and analytics of integrated optical circuits or electro-optical devices

Personal characteristics	<ul style="list-style-type: none"> ▪ Self-motivated, highly proactive, strong curiosity, and desire to learn ▪ High sense of ownership and accountability ▪ Strong interpersonal skills and sense of humility ▪ Constructive and pragmatic problem solving
Our offer	<p>You will be part of a highly qualified, dynamic, and ambitious team with entrepreneurial spirit and strong focus on innovative solutions with high market potential. We strive for creativity and excellence in the field of 3D lithography for photonic integration and packaging with a special emphasis on industrially viable processes. We offer competitive compensation, flat hierarchies, and rich career opportunities within a vividly growing start-up company.</p>
About Vanguard Automation GmbH	<p>Vanguard Automation is headquartered in Karlsruhe, Germany, the home of Karlsruhe Institute of Technology (KIT) and a fast-growing and vibrant economy. We offer automated assembly processes and machines for 3D nano-printing in photonic multi-chip integration and packaging. Our products and services cover the entire range from small-scale prototyping to scalable manufacturing solutions. Our internationally unique technology and IP portfolio combined with two decades of experience in industrial automation through our partner companies attract an inherently global customer base. We practice constant respect for people and are committed to innovation and continuous improvement. At the core our team at Vanguard Automation comprises experts in photonics, material science, high-precision opto-mechanics, software development and automation engineering.</p>
Contact email	<p>Apply now by submitting your CV and letter of motivation to jobs@vanguard-automation.com.</p>