**Dry Etch Technology Development Process Intern**

**Job Description**

At Intel, we optimize storage and memory from device physics to platform architecture to system level solutions while collaborating with industry leaders to help our customers. We continue to invest in two core technologies: Intel Optane technology that delivers industry-leading low latency (it's super-fast!) and Intel 3D NAND technology that delivers high density at low cost. F11x in Rio Rancho, New Mexico is Intel's new Non-Volatile Memory Solutions Group (NSG) Technology Development site and will focus on Optane Technology Development and NAND Technology Research and Pathfinding.

To deliver the silicon technology, the Intel NSG Rio Rancho Technology Development (RTD) group is looking for talented and enthusiastic Dry Etch Technology Development Process Interns to help support ongoing technology development projects in Dry Etch. As a Dry Etch Intern, you will be integrated with the main Dry Etch team and will be involved in one or more Dry Etch process development projects, as well as having exposure to daily fab operations in Dry Etch. These projects will provide you with the opportunity to learn Dry Etch as well as demonstrate and build capability with problem solving, innovation, experimental design, and data analysis. Internships will involve support and/or interactions across shifts and collaboration with cross-functional/cross-company teams to meet challenging program goals.

NOTE: Safety is a core Intel value. Therefore, due to COVID-19 health and safety restrictions, internships will be conducted remotely.

Internships will be for a minimum of 3 months, with an option for 6 months.

Responsibilities may include, but are not limited to:

* Ownership of one or more projects focused on deeper process understanding or innovation/improvements in the Dry Etch process area.
* Designing, executing and analyzing experiments necessary to meet engineering specifications for one or more dry etch processes/projects.
* Developing solutions to problems utilizing formal education, statistical knowledge, and problem-solving tools.
* Understanding the connections between specific projects and the broader wafer processing flows, procedures, and process control systems used for device fabrication.
* Working in a dynamic team with other engineers and technicians toward broad-based solutions.
* Solving difficult problems and establishing systems to solve similar problems in the future with greater velocity and precision.

Specifics of the role:

* Quickly onboard, learning all RTD safety and quality procedures necessary for work in the area
* Work closely with one or two experienced Dry Etch engineers to understand scope and timeline for project(s)
* Maintain flexible schedule as needed to support project(s) and align to availability of resources and collaborators
* Regular 1:1 meeting with direct project manager
* Remotely execute experiments in lab or fab observing all safety and quality protocols
* Clear and methodical data collection and analysis
* Create and present project summary at end of internship showing what was learned and how it will be useful to ongoing TD efforts

**Qualifications**

*Minimum Requirements:*

* The candidate must be pursuing a Master’s and/or PhD in Electrical Engineering, Chemical Engineering, Mechanical Engineering, Material Science, Physics, or Chemistry.
* Minimum 3+ months of experience or equivalent coursework in the following areas:
  + Semiconductor device fabrication (any process area)
  + Experimental design and structured problem solving

*Preferred Requirements:*

* Master’s and/or PhD thesis work in the area of plasma physics, plasma diagnostics, plasma etch or plasma deposition.
* Coursework in or experience with Design of Experiments DOE principles
* Analytical/ inspection/ metrology/ quality control experience (any industrial setting)

**Inside this Business Group**

Non-Volatile Solutions Memory Group:  The Non-Volatile Memory Solutions Group is a worldwide organization that delivers NAND flash memory products for use in Solid State Drives (SSDs), portable memory storage devices, digital camera memory cards, and other devices.  The group is responsible for NVM technology design and development, complete Solid State Drive (SSD) system hardware and firmware development, as well as wafer and SSD manufacturing.