

Summer Internship 2025 Digital Fabrication

Description:

Kohn Pedersen Fox Associates (KPF - <https://www.kpf.com/>) is seeking a Digital Fabrication Intern for Summer 2025. This internship provides the opportunity to work on cutting-edge digital fabrication projects, assist in production optimization, and contribute to research at the intersection of generative design, additive manufacturing, and architectural innovation. Interns will collaborate with interdisciplinary teams, integrating advanced fabrication workflows into real-world projects.

Key Responsibilities

• Digital Fabrication (60%)

- Acquire comprehensive knowledge of Makerspace technologies, operations, and safety protocols to independently manage and maintain a safe working environment.
- Operate and maintain Makerspace technologies, including additive, subtractive, and formative fabrication methods, ensuring proper functionality and safety.
- Assist in generative design practices to achieve optimized solutions for fabrication.
- Collaborate closely with interdisciplinary design teams to effectively understand and address project requirements, ensuring alignment with goals and specifications.
- Utilize laser cutting machines, resin printers, and multicolor 3D printers to produce high-quality components for architectural models and prototypes.
- Apply formative fabrication techniques, such as casting and mold-making, to create innovative design elements.
- Support additive manufacturing workflows using software such as Ultimaker Cura and Bambu Studio for 3D printing production.
- Perform post-processing and finishing tasks, including sanding, polishing, and painting, to achieve professional-level quality.
- Document design iterations, production runs, and results, showcasing the ability to identify challenges and provide corresponding solutions.
- Prepare presentations, effectively communicating project status and methodologies employed to educate and inform the team.

• Technology Development (40%)

- Familiarize with Makerspace technologies and their operations, including software used to control machines.
- Gain proficiency in generative design software, such as Autodesk Fusion 360, and explore algorithmic design techniques for KPF projects.
- Research and contribute to the integration of new fabrication techniques into KPF's workflows.
- Support the development of streamlined workflows and reusable processes for digital fabrication.

Internship Goals

- Work on at least two projects:
 - One independent digital fabrication task involving laser cutting, resin printing, or formative methods.
 - One high-engagement project collaborating with the broader team to influence design through fabrication methods.
 - Contribute to the KPF Makerspace knowledge base, helping to streamline workflows and build reusable processes.
 - Develop technical proficiency in digital fabrication methodologies, including:
 - Additive, subtractive, and formative fabrication techniques
 - Laser cutting and resin printing methods
 - Multicolor 3D printing workflows
 - Workflow optimization and troubleshooting
 - Post-processing and quality control

Preferred Qualifications

- Enrolled in a degree program in digital fabrication, architecture, engineering, or a related field.
- Experience and knowledge of additive manufacturing, subtractive technologies, and formative methods such as casting.
- Proficiency in software such as Ultimaker Cura, Bambu Studio, and Autodesk Fusion 360.
- Strong attention to detail, problem-solving skills, and a passion for innovation.
- Excellent communication and teamwork abilities, with a willingness to learn and contribute to collaborative projects.

Compensation:

Compensation will be at a regular rate of \$25.00 USD/hour; Overtime rate: \$37.50 USD/hour.

Application:

When applying to the position, please submit your resume, a portfolio with pertinent design, research, and fabrication work, and a short cover letter. All materials should be sent by email to: ddiaz@kpf.com and jbrennan@kpf.com with the heading: 'Summer Intern – Digital Fabrication'. The final deadline for applications 4/18/25, 2025.

KPF is an Equal Opportunity Employer and welcomes diversity in the workplace. Please note that participation in KPF's Internship Program is voluntary and that KPF is under no obligation to offer an internship position to any applicant for any reason.

About KPF:

The KPF Design Technology Team applies computational design, digital fabrication, and data analysis to enhance architectural workflows and urban design strategies. We challenge the foundations of city-building to create equitable, sustainable, and vibrant spaces.

KPF offers internship positions varying durations to approximately 35-40 highly talented students each year, coming from accredited design programs from around the world. Each student brings their own unique personal and cultural experiences and skills. When combined with our core staff of over 400 architects from over 50 countries, the result is an unparalleled opportunity to work with highly motivated people on some of the most remarkable design opportunities across the globe.
