SOFTWARE +
SOLUTIONS

Software Development

Our software development teams focus on providing clients with better solutions using creative thinking, automation, and the latest technology. Depending on project needs, we may build complex applications and infrastructure from the ground up or we may improve existing systems. Our work involves collaboration among developers, engineers, and artists, incorporating a variety of skill sets, including:

CAE & SIMULATION APPLICATIONS

Create desktop applications, scripts, and server-side code to automate and support finite element analysis (FEA) simulations, CAD, data management systems, and other computer-aided engineering (CAE) tools.

MOBILE & WEB DEVELOPMENT

Build full-stack web applications, mobile apps for iOS and Android, and other interactives, with a focus on marketing, database-driven tools, and augmented reality (AR).

IMAGE & SPATIAL DATA ANALYSIS

Manipulate, analyze, and visualize large 2D or 3D datasets such as those obtained from industrial CT scans, medical imaging, photogrammetry, and other inspection modalities.

REAL-TIME SIMULATION & VIRTUAL REALITY

Use game engines and the latest VR hardware to create interactive, real-time simulations to evaluate architecture, manufacturing, products, medical procedures and more.

DEVELOPMENT OPERATIONS

Coordinate developers, manage software testing and quality assurance, deploy releases, support clients and users, and keep our projects running smoothly.

Skill Sets
CAE & Simulation Applications
Mobile Apps
Web Development
Imaging & Spatial Data Analysis
Real-time Simulation &
Virtual Reality
Development Operations

Fields
Computer Science
Computer Engineering
Information Technology
Other Related Fields

Requirements
3.0 GPA or Higher
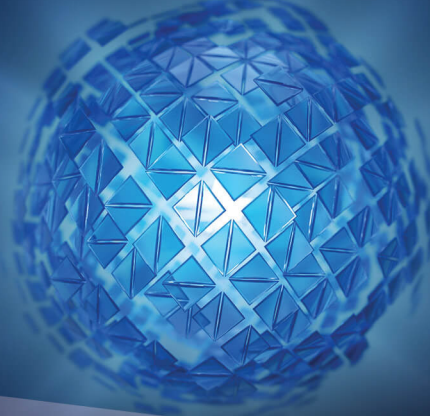ITAR Citizenship Requirement

Tools
C#
C/C++
Git
Javascript / HTML / CSS
Python
Ruby on Rails
Swift
Unity

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CREATIVE +
VISUALIZATION

Graphic and Digital Design

The creative team is comprised of visual thinkers that deconstruct problems, build structures, and create narratives that powerfully convey brand messages, products or services. We operate collaboratively, utilizing our multi-disciplined team to drive innovation in the following types of project work:

TECHNICAL & MEDICAL VISUALIZATIONS

Communicate biological processes, surgical procedures, anatomical structures/manipulation, and product features to audiences in an engaging or educational way.

MOBILE & WEB DESIGN

UX/UI design that maximizes user interaction through visually appealing layouts, organized information, and easy-to-use elements sized for all screens or browsers.

VIDEO EDITING & MOTION GRAPHICS

Combine HD and 4K video, 3D/2D animation, images, graphics and special effects using advanced editing software to build powerful content and complete presentations.

VIRTUAL REALITY & INTERACTIVE DESIGN

Bring complex designs to life in an immersive 3D environment to help clients evaluate the success of their products, train, or educate their audiences.

SALES & MARKETING COLLATERAL

Build effective products and campaigns to communicate key messages to target audiences, including printed materials, radio/TV spots, tradeshow exhibits, and digital presentations.

Skill Sets
Technical & Medical Visualization
Mobile & Web Design
Video Editing & Motion Graphics
Virtual Reality & Interactive Design
Sales & Marketing Collateral

Fields
3D Animation & VFX
Communication Design
Industrial Design
Fine Arts
Graphic Design
Other Related Fields

Requirements
3.0 GPA or Higher
ITAR Citizenship Requirement

Tools
Adobe Creative Suite
Microsoft Office
3D Studio Max
Maya
ZBrush
Keyshot
Unity

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MANAGEMENT + OPERATIONS

Project Management and Operations

Our company has a strong product development focus. As a result, the ideal candidate would thrive in a technical environment and would use their business mind to help our design, engineering, imaging, creative, and software development teams move forward in areas such as:

TECHNICAL PROJECT MANAGEMENT

Assist with project efficiencies by tracking hours, costs, and other critical data. Candidates could work with technical projects that can include Reverse Engineering & Inspection Services.

ANALYSIS & REPORTING

Utilize critical thinking and analysis skills to assist management in making informed decisions. Work can include, manipulating data using 3D Space and Visualization, tracking statistics ranging from SEO to employee data, and managing facilities using IoT devices.

OPERATIONS

Contributes to helping the company run efficiently by assisting with general office operational needs and helping to develop and maintain the company intranet site.

Skill Sets
Technical Project Management
Analysis & Reporting
Operations

Fields
Industrial Management
Operations Management
Engineering
Accounting
Other Related Fields

Requirements
3.0 GPA or Higher
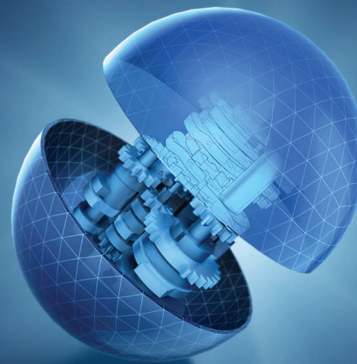ITAR Citizenship Requirement

Tools
Collaboration Platforms
Issue Management
Accounting Tools
Job Scheduling
Resource Planning

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Product Engineering

Kinetic Vision provides advanced product development and design services to companies and inventors nationally in the medical, automotive, consumer products, and aerospace industries. Using an integrated approach to product development enables us to simultaneously design, engineer and market new products, resulting in shorter time-to-market, higher quality, and cost savings. Skill sets include:

PRODUCT DESIGN & DEVELOPMENT

Use advanced 3D CAD modeling software and rapid prototyping equipment in the design, development, and testing of new products and manufacturing equipment.

FEA ANALYSIS & OPTIMIZATION

Work on modeling and simulation projects that will take advantage of advanced numerical analysis techniques to virtually simulate and test products across a wide spectrum of physical problems.

REVERSE ENGINEERING & INSPECTION SERVICES

Work with data collected from various 3D non-destructive modalities, including industrial Computed Tomography, to inspect and troubleshoot products from a broad set of industries.

Skill Sets
Product Design & Development
FEA Analysis & Optimization
Reverse Engineering & Inspection

Fields
Mechanical Engineering
Aerospace Engineering
Biomedical Engineering
Other Related Fields

Requirements
3.0 GPA or Higher
ITAR Citizenship Requirement

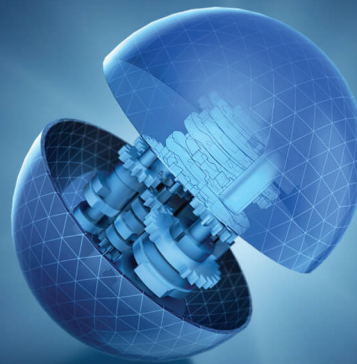**Tools**
ANSYS
ABAQUS
CATIA
Geomagic
HyperWorks
LS-DYNA
SOLIDWORKS

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ENGINEERING +
DEVELOPMENT

Hardware Development

Our hardware development teams focus on providing clients with better solutions using creative thinking, rapid iteration, and the latest embedded technology. Depending on project needs, we may integrate off-the-shelf components quickly or design a custom system from the ground up. Collaboration with our mechanical teams allow us to design and build entire product assemblies completely in-house. Key skills include:
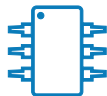
EMBEDDED DEVELOPMENT

Create custom circuitry and write code for microcontrollers, using platforms like Arduino, Bluegiga, and Texas Instruments MCUs to interface with a variety of sensors and electromechanical systems.

ROBOTICS

Design, develop, and build robotic systems that increase efficiency of complex and repetitive processes. This automation may involve a variety of disciplines, including microcontroller programming, motion tracking, and controller development.

CONTROLLER & HMI DEVELOPMENT

Design and develop custom circuits, enclosures, and user interfaces to accelerate the prototyping and testing of electromechanical systems.

IOT & DISTRIBUTED SENSING

Leverage the Internet of Things (IoT) to acquire data from across the globe, analyze these distributed inputs, and keep systems running efficiently and smoothly. Integrate IoT platforms into existing infrastructure or investigate novel use cases.

Skill Sets
Embedded Development
Robotics
Controller & HMI Development
IOT & Distributed Sensing

Fields
Electrical Engineering
Computer Engineering
Mechanical Engineering
Other Related Fields

Requirements
3.0 GPA or Higher
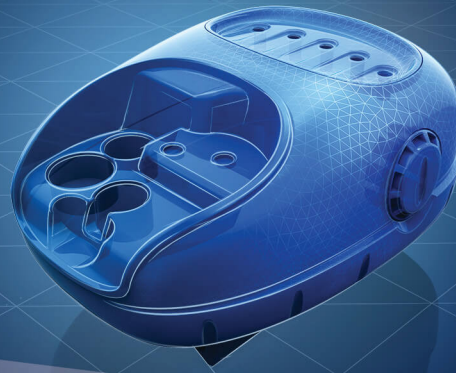ITAR Citizenship Requirement

Tools
C/C++
Eagle
Git
Python
Solidworks
Wiring & Soldering
Qt

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INNOVATION +
INDUSTRIAL DESIGN

Industrial Design

Our Industrial Design team is composed of great problem solvers who can adapt to the human experience to generate products that improve consumer value through interaction and visual aesthetics to make lives richer. We utilize our internal resources such as engineering, CAD programs, model shop, software development and more to help us drive innovation in the following types of project work:

BIOMEDICAL

Redefine functional form and user ergonomics to develop more efficient solutions within handheld and non-handheld instrumentation. We work in many materials and processes that impact lives.

CONSUMER PRODUCTS

Consumer products is a broad category and we work on products from simple bottles to electronics to pet items to sporting goods. They all require research in cultural trends of form, color and finish.

INDUSTRIAL PRODUCTS

Bring life to commercial and industrial products that exist in rugged environments and conditions. Help improve functional process and durability through design while incorporating understanding of outside influences.

INNOVATION

Our team constantly collaborates on innovation using a blended team approach. We are looking for creative problem solvers with a history of redefining problems through unique opportunities. We even work with outside inventors on a regular basis.

Skill Sets
Innovative Problem Solving
Strong Sketching Ability
3D CAD Proficiency
Thrive in Collaboration

Fields
Industrial Design

Requirements
3.0 GPA or Higher
ITAR Citizenship Requirement

Tools
Adobe Creative Suite
Microsoft Office
Solidworks
Keyshot

To Apply
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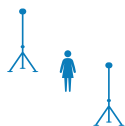kinetic-vision.com/co-op

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VIRTUAL +
AUGMENTED REALITY

Virtual and Augmented Reality

VR and AR require a unique blend of visualization and software development skills. Whether we're creating photorealistic VR experiences for the latest head-mounted displays or mobile AR apps to be released to the general public, we carefully craft XR experiences to enable visualization, design, engineering, and training. Our projects involve:

MOTION TRACKING

Integrate hardware and software to provide unique functionality for virtual or mixed use cases. Use motion tracking and depth sensing technologies to capture user and environment data.

GRAPHICS & SHADERS

Create optimized, high quality assets, materials, and shaders for immersive VR and convincing AR.

UI/UX DESIGN

Carefully plan and test intuitive interactions and solutions to enable new ways for computers to train users and users to train computers.

PHYSICS & REAL-TIME SIMULATION

Take advantage of GPU advances to apply the speed and quality of game engine physics simulation to real world problems.

DATA VISUALIZATION

Bring this data to life, from CAD to volumetric point clouds, with interactive experiences, or simply display it with that extra level of polish.

Skill Sets
3D Modeling & Materials
Animation
Game Development
Mobile Development
UI Design

Fields
3D Animation & VFX
Computer Engineering
Computer Science
Game Design
Graphic Design
Interactive Design

Requirements
3.0 GPA or Higher
ITAR Citizenship Requirement

Tools
3ds Max
C++
C#
HTC Vive
Maya
Oculus Rift
OpenGL
Swift
Unity
Unreal Engine
NVIDIA APIs

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INFORMATION +
TECHNOLOGY

Information Technology

Our Information Technology team architects, secures, configures, and maintains all computing technology used by the company. Our current initiatives include:

VIRTUALIZATION

Use Hyper-V, VMware, VirtualBox, Vagrant, and other virtualization technologies across a variety of use cases.

NETWORK MONITORING & DESIGN

Plan, configure, document, and optimize our 10Gb/s network and use the latest networking technologies.

DESKTOP SUPPORT

Front-line support for our tech-savvy end users and their dynamic computing environments.

SERVER ADMINISTRATION

Administer and monitor our growing data center, including thousands of cores and hundreds of CPU and GPU compute nodes.

CLOUD

Implement the latest in cloud technology, including virtual networking components, load balancers, compute instances, storage technologies, archival products, PaaS, and more.

Skill Sets
Networking
Cybersecurity
DevOps
Hardware Support

Fields
Information Technology
Information Systems

Requirements
3.0 GPA or Higher
ITAR Citizenship Requirement

Tools
Windows Server
Active Directory
SCCM
NAS Management
Virtualization
WireShark
AWS/Azure
Group Policy
VDI/Thin Clients
Enterprise Storage
Asset Management

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