CLARK ATLANTA UNIVERSITY
Job Description

Position Title:	**Technology and Sustainable Research Engineer**
Department:	**Visualization, Simulation and Design Laboratory / Dual Degree Engineering**
Reports To:	**Director ViSiDeL / Sustainable AI & CS Climate Innovation Center Hub**

The following statements are intended to describe the general nature and level of work to be performed and are not intended to be construed as an exhaustive list of all responsibilities, duties and skills required of personnel so classified. All duties listed are essential functions for the position. It is understood that other related duties may be assigned.

About Us:

At the CAU ViSiDeL – A Virtual Reality Lab, we are dedicated to leveraging cutting-edge technologies to drive Climate Innovation. Our interdisciplinary team works at the intersection of AI, Cybersecurity, Mixed Reality, and Sustainability to develop solutions that address the most pressing environmental challenges. We are seeking a dynamic and forward-thinking Technology and Sustainable Research Engineer to join our innovative team.

General Function (Description):

The Technology and Sustainable Research Engineer (TRE) will play a pivotal role in developing and implementing advanced technological solutions that support our climate innovation initiatives. This role requires a deep understanding of AI, cybersecurity, mixed reality, and sustainability principles. The ideal candidate will be responsible for conducting research, developing prototypes, and implementing scalable solutions that enhance our sustainability goals and mitigate climate impacts.

The TRE will provide leadership in the design, development, integration and User Interface / Front End applications supporting an embedded system. The TRE will utilize his/her experience and expertise to solve complex engineering research problems, develop and execute departmental objectives to positively impact business goals.

Key Responsibilities:

Research and Development:

- Conduct cutting-edge research in AI, cybersecurity, and mixed reality to develop innovative solutions for climate sustainability.
- Identify and analyze emerging technologies and trends that can be applied to climate innovation projects.
- Collaborate with cross-functional teams to integrate advanced technologies into sustainability initiatives.

Technology Implementation:

- Design, develop, and implement prototypes and scalable solutions that leverage AI, cybersecurity, and mixed reality for sustainable applications.
- Ensure the security, scalability, and reliability of developed solutions.
- Utilize data analytics and machine learning techniques to drive insights and optimize sustainability strategies.

Project Management:

- Lead and manage technology-driven sustainability projects from conception through execution and evaluation.
- Coordinate with internal and external stakeholders to ensure project alignment with organizational goals and timelines.
- Monitor project progress, identify risks, and implement mitigation strategies.

Sustainability Advocacy:

- Advocate for the integration of sustainable practices and technologies within the organization.
- Provide technical expertise and guidance on sustainability issues to various departments.
- Contribute to the development of sustainability policies and best practices.

Collaboration and Communication:

- Collaborate with researchers, engineers, and business units to align technology initiatives with sustainability objectives.
- Communicate complex technical concepts to non-technical stakeholders.
- Prepare and present reports, publications, and presentations on research findings and project outcomes.

Other Duties:

- Provide technical advice to ViSiDeL leadership to optimize their technology investments.
- Responsible for driving fast and sustainable growth in the ViSiDeL services to address needs and objectives, with responsibilities for these areas:
- Technical Solution Architecting - Interact with various stakeholders to interpret and evaluate business objectives, requirements, and propose technology solutions.
- Innovative New Business Model - Understand ViSIDeL's business models and drivers and translate them into either platform configuration or specification for new implementation or even new service offerings.
- Website Design and Maintenance – Facilitate in the on-time and high-quality delivery of ViSiDeL website content.
- Identify New Market Opportunity – Gather market trends and intelligence for platform extension, application program interface (APIs) integrations, and content conversions with new features and functionality. Liaison and stakeholders and management teams to drive service evolution.
- Technical Solution Specialists can potentially be involved with additional projects and initiatives depending on her/his special skills and interests, and organizational requirements

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Skills, Certifications and Knowledge:

- **Skills:**
  - Deep understanding of AI and machine learning algorithms, cybersecurity principles, and mixed reality technologies.
  - Proficiency in programming languages such as Python, C++, or Java.
  - Strong analytical and problem-solving skills.
  - Excellent project management and organizational abilities.
  - Effective communication and interpersonal skills.
- **Certifications:**
  - Relevant certifications in AI, cybersecurity, or sustainability are desirable.
  - Effective communication and interpersonal skills.
- **Knowledge:**
  - Strong JavaScript / jQuery knowledge / Python / UNITY
  - CSS and HTML5
  - JSON
  - C/C++ is recommended for handling interfaces with the embedded solutions
  - Web IDE (such as NetBeans)
  - Jasmine / Karma
  - Chrome / FireFox development console / tools
  - SonarQube code analysis
  - Virtual Machine and SVN familiarity
  - Strong team working skills
  - Experience of planning software development work
  - Strong technical aptitude
  - Strong oral and written communication skills
  - Strong interpersonal and leadership
  - Ability to consistently achieve daily/weekly/monthly activity goals
  - Must meet high quality standards, follow regulations, and maintain confidentiality
  - Problem-solving and analytical skills and ability to analyze issues and articulate appropriate solutions to management

Minimum Hiring Standards:

Education	Bachelor's or Master's Degree in Engineering or Computer Science, Environmental Science, or a related field, A Ph.D. is a plus, from an accredited college or university.
Years of Experience	2+ years' experience with software development life cycle, implementation and issue tracking systems. o Proven experience in AI, cybersecurity, mixed reality, and sustainability research. o Strong track record of developing and implementing technological solutions. o Experience managing interdisciplinary projects and collaborating with diverse teams.

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