"CONFIDENTIAL SEARCH"

POSITION AND CANDIDATE SPECIFICATION

COGNITIVE SYSTEMS ENGINEER (CSE)

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Position Profile: Cognitive Systems Engineer (CSE)

Opportunity: We have been engaged to find a Cognitive Systems Engineer (CSE) with the skills, passion and drive to develop revolutionary decision making support solutions. The candidate we seek has keen observation skills and can understand both the technical and social environment to create revolutionary tools which simplify decision making in mission-critical and business-critical situations. The successful candidate will be a member of an elite team of driven professionals who can see beyond the obvious to create and build revolutionary decision-support solutions for their clients.

The candidate we seek is a goal driven, elite problem solver. They will bring curiosity, creativity, and energy to a team based, innovative process developed by this unique business. A dynamic, driven CEO leads this organization with a passion for the challenge of solving the most complex problems, problems that others often describe as impossible. He continues to build a performance driven team.

We seek candidates for the Cognitive Systems Engineer (CSE) role that will integrate with the team to elevate and expand the organization’s capabilities. As a member of the RCS team, this candidate will work to understand technology and processes, provide unique insights and effectively communicate ideas resulting in significant impact through collaboration and creativity.

It is likely our candidate is creating their own education and career track outside of traditional paths. Throughout their professional history, they often sought out additional course work or assignments outside the standard curriculum, often crossing into other areas of study. They seek and enjoy the challenge of solving difficult whole system problems encompassing multiple disciplines.

The interest and skills of this candidate are best illustrated in the diagram below. They should have interests and experiences in technical disciplines such as computer science or engineering as well as human sciences, such as Psychology. We seek a candidate with the combination of skills, knowledge and understanding at this intersection.
Our client has career opportunities for candidates with experience ranging from internships, to early career, to senior professional levels. These are career opportunities with a very unique organization that will provide a variety of professional experiences.

**Organization:**
Our client and location are confidential. We will share the details with qualified candidates. All inquiries will be handled with the highest level of discretion and confidentiality. We welcome an opportunity to discuss a career with you.

**Current Situation:**
This business is privately held with a track record of success and stability. Decision Support Solutions developed by this business have been implemented in several public and private sectors since 2007. This business works with a list of well-known organizations operating in a global environment. The business is focused on solving complex challenges and building opportunities for future growth. Finding this talented Cognitive Systems Engineer (CSE) to join the team is critical to long term success. This recruiting effort is a key to growing the team with a focus on long view perspective of career development and success.

This person must bring energy, intellect and the ability to engage as a member of an elite team. It is important to emphasizes this is a unique organization working with complex challenges faced by their clients.
This is a creative, results driven environment with team members given a high level of support. Each member brings a unique skill set and style to the team; this skill diversity allows them to tackle challenging problems. They win as a team.

In addition to Cognitive Systems Engineers, the client employs people with different backgrounds who all work toward a common goal to design decision systems that respect how humans think. They specialize in the pragmatic application of cognitive systems engineering theory.

The software engineers embrace a “nothing is impossible” approach and provide customers with elegant software solutions, both architecturally and visually. The visual designers inject personality into the interface and materials with functional and engaging aesthetics.

Based on projected growth our client will consider candidates at all experience levels. Candidates with an interest in this type of work are encouraged to contact us for discussion. We welcome conversation around opportunities with this client.

Responsibilities: Cognitive Systems Engineers (CSE) work with interdisciplinary teams comprised of CSEs, Software Engineers and Designers to create the concepts and detailed designs for revolutionary information systems. The entire team is dedicated to providing principle-driven design of human-machine systems with the central focus to create effective systems that embed user expertise and support decision making.

CSEs are responsible for developing the system interface designs as well as conducting the comprehensive cognitive work analysis that informs those designs. They must be ‘technology aware’ as they embed/employ that powerful technology to enable the design. CSEs also work closely with our talented group of software developers, providing design concepts, representational designs, and functionality requirements as guidance for their system development effort. This is a big facilitation challenge to be able to bridge the gap to a totally different discipline, with its own pressures/processes/language/heritage.

Senior level CSEs have overall leadership of the full range of technical efforts of the team, and have the freedom to employ the resources allocated to achieve the mission in the manner they see appropriate.
The experienced CSE will:

- Lead the cognitive task analysis effort to provide critical analytical basis for subsequent design.

- Create and prototype innovative and useful GUI designs for complex domains.

- Perform iterative evaluations of system prototypes, and operational evaluations of fielded decision support systems.

- Work as part of a multidisciplinary team, following the leadership of senior cognitive systems engineers.

- Communicate directly with customers and subject matter experts.

**Candidate Profile:**

The Cognitive Systems Engineer will be responsible for contributing to and thriving in a results-driven, team based environment.

A senior level CSE is expected to have effective interpersonal skills, project management skills, business acumen, strong critical thinking and analytical / logical reasoning skills.

**Education:**

The candidate might be described as driven and intellectually curious. They will likely have broad interests in technical areas like engineering, math, design and systems along with social sciences, including psychology. Conversely the candidate might have strong education and experience background in psychology and have an interest and strength in engineering, math, design and systems.

A good fit will include a demonstrated combination of interests, experiences and education in technical and social disciplines such as Engineering, Human Factors Engineering, Psychology or related fields.

Candidates can be successful coming from a range of educational experience; candidates with a Bachelor of Science degree, as well as candidates with advanced degrees, MS or PhD, are encouraged to apply.

Some training in analyzing, designing, and evaluating information visualizations, and graphical user interfaces is helpful.
Knowledge / training in cognitive engineering and human-computer interaction, and knowledge of the state-of-the-art research in these areas are beneficial.

You must have strong oral and written communication skills.

**Experience:**
Early career candidates will likely have had project experiences through the university where they gained experience in the application of theories of human perception and cognition to technical systems.

We welcome candidates who have work experience as an engineer, systems developer, designer or in the field of psychology that have a strong interest and passion to work in this intersecting discipline.

**Attributes / Work Behaviors:**
The CSE will have energy, drive and demonstrated initiative. High performing CSE’s are success driven by nature. They will be persistent with the ability to adjust their thinking or approach to changing needs and priorities to reach a specific goal. These characteristics are best described as agile and adaptive.

The successful candidate will embrace accountability for themselves and the team for their actions, results and decisions. They will take initiative and handle job responsibilities with a minimum of direction and/or supervision.

Our CSE will have strong planning and organizing skills that include the ability to think through actions, prioritize work, and devote appropriate attention to detail to ensure a quality work product.

Success requires that they excel in working and achieving goals as a group. They must have strong interpersonal and collaboration skills to maintain a positive attitude toward others and work cooperatively as part of a team, sharing information and asking for help to reach success as a team.

In a dynamic team environment candidates must be tolerant and effectively manage frustration. The candidate must be able to listen and
respond objectively to critiques, and then to adapt and grow based on that feedback. When faced with troublesome situations, the candidate must be able to acknowledge the situation and how it came to be without becoming defensive, and needs the ability to recover from such situations without blaming others for mistakes.

They have strong analytic, problem definition and problem solving skills, including:

- Ability to analyze a problem domain and to distill core decision-making processes and challenges; often from complex, semi-articulated problem domains.

- Ability to identify and adapt applicable technologies found in academic and industrial research.

- Ability to create / innovative human-machine interface approaches and to translate them into successful decision-support solutions.

**Commitment to results:**
The CSE is a systems thinker who is customer focused and goal driven. This individual identifies relevant information and helps transform this information into individual and organizational knowledge and learning. The CSE is action oriented and innovative.

This candidate will have highest standard of unquestioned professional conduct and act continuously to model integrity and credibility.

**Location:**
This position is based in an attractive community with vibrant cultural venues, top quality universities, world renowned medical facilities and year round recreation. The client will provide relocation support.

**Compensation:**
The compensation plan is very attractive with opportunity for career growth, development and continued learning.

**Additional information** about this opportunity should be directed to Gerry Peterson, Managing Principal, Tartan Group, LLC. [Gerry@TartanGroupLLC.com](mailto:Gerry@TartanGroupLLC.com), Phone 724-327-0916.