

Subject/title: *N*HanCE Research Lab is seeking undergraduate programmer

The *Next-generation Human-systems and Cognitive Engineering (NHanCE)* Research Lab is located in the School of Industrial Engineering at Purdue University. The goals of the *NHanCE* Lab are to (1) understand how human operators in complex transportation, work, and leisure environments (such as driving, aviation, manufacturing, healthcare, and home) interact with various next-generation technologies and to (2) enhance performance through interface (re)design. We do so through a series of human-subject experiments. We are particularly interested in understanding how different generations, particularly aging populations – who represent the fastest-growing age group worldwide, collaborate with intelligent systems. Our research areas include human factors, cognitive ergonomics, human-automation interaction, cyber-physical-human systems, multimodal and context-sensitive interface design, and gerontechnology.

Given that most of our research projects involve simulated human-subject experiments, we are always looking for highly motivated undergraduate students with knowledge of computer programming from Computer Science, Electrical and Computer Engineering, or any related field.

Required skills:

- Good knowledge of programming languages and environments, such as Python, Java, C, C#, C++, Microsoft Visual Studio
- Basic knowledge of electronics, computer hardware, software-hardware interfacing, socket and network programming, APIs, and web applications
- Willingness to learn new software languages and packages as needed

Preferred qualifications:

- At least sophomores who have developed software and/or programs outside of course requirements

Position details:

- Independent research course credit
- Average of 10-15 hours per week (hours are very flexible)
- Semester appointment, which anticipation of retaining student for multiple semesters (a 3-month trial period will be given prior to start of appointment)
- No previous knowledge of human factors and ergonomics (nor any domains listed above) is needed

If you possess the above skills and are interested in this position, please send your resume or CV to nhance@purdue.edu and we will get in touch with you with more information. For additional details about our lab, visit: <https://engineering.purdue.edu/NHanCE>.