

# Proposal to Create an Assistant Professor (Special Title Series) Position

## Department of Computer Science

### College of Engineering

### University of Kentucky

#### 1. Justification

The Department of Computer Science has experienced continual growth of undergraduate students from 2010 to 2021, with a 15% average annual growth rate. However, the number of faculty members has decreased in recent years. In 2019-2020, we got a cut of one regular tenure-track faculty position and one lecturer position due to the Covid budget cut. In 2020-2021, we lost 3 tenure track faculty members (2 resignations and 1 retirement). In 2021-2022, we lost 4 tenure track faculty members (1 resignation and 3 retirements). We lost a total of 8 tenure track faculty members plus 1 lecturer. We hired 1 tenure-track faculty member starting August 2021 and 3 starting August 2022. We have been approved to hire one more tenure-track position. So the net loss is 3 tenure track positions plus 1 lecturer position. Even if we do not count the Covid cut, we still have a net loss of 2 tenure track positions.

At the same time, the growth trend of CS enrollment is continuing this year. The total enrollment of undergraduates has increased from 585 (2021) to 658 (2022), or 73 more students, which account for a 12% increase. In Fall 2019, we started a new undergraduate cybersecurity certificate program (with ECE), and an MS in Data Science program (with IBI, Biostatistics). Both programs have enriched the educational experience and provides new opportunities for students. They have been successful and attracted many students to the program. Both programs have new courses developed to meet the program objectives. The increasing enrollment, new programs, and retirements/resignations have several consequences. The students/faculty ratio becomes higher, and the teaching load on faculty is also higher. As a result, the size of classes becomes larger. We must hire 4-5 part-time instructors to cover a few courses every semester. Some elective courses must be cancelled because we cannot find an eligible instructor to teach. This problem also affects the research and other initiatives of the department because of the heavy teaching load. The Department requires new faculty to build up additional teaching capacity and fill gaps in curriculum coverage.

This tenure-eligible assistant professor (special title series) position will support the offering of the Senior Design course along with filling capacity for other required and elective undergraduate and graduate courses. Currently the Senior Design course is taught by a part-time instructor. This has been identified by the ABET visit as an area of concern. Hiring of a tenure-eligible special title series faculty member can resolve the issue. The position will work with other faculty with industry connection to build a pipeline of industry-sponsored capstone projects and will advise student design teams. A strong industry background is needed, with a focus on teaching, especially for teaching the Senior Design course. A small percentage of efforts on research is required to keep the hired person updated with the ever-evolving forefront of CS research. Therefore, a Special Title Series tenure-eligible position is most appropriate for the need of the Department.

*approved 3/7/23*  
*Jane E. Nokes*

**2. Department**

Department of Computer Science

**3. College**

College of Engineering

**4. Position Description**

This position will be responsible for teaching the Senior Design course along with other required and elective courses aligned with the candidate's areas of expertise. Successful candidates must demonstrate a strong commitment to undergraduate and graduate education and be qualified to teach a broad range of courses in Computer Science. All special title series faculty are expected to have a mix of research, teaching, and service to be negotiated annually with the chair of the department, with at least 70% efforts in teaching. This is a tenure-eligible 9-month faculty position in the Special Title Series.

**5. Qualifications**

Applicants must hold a Ph.D. degree in Computer Science or a closely related field. Priority will be given to applicants with significant industrial experience. Applicants should have strong written and oral communication skills and a commitment to excellence in undergraduate education.

**6. Position Funding and Duration**

The position will be funded by the College of Engineering. Terms will be governed by the University of Kentucky Administrative Regulations. Appointment will be full-time for a nine-month term.

Approved by the Computer Science Faculty on November 8, 2022.

## **Computer Science Guidelines for Promotion and Tenure (Special Title Series)**

In tenure and promotion considerations, related to the Special Title Series, the Faculty of the Department of Computer Science bases its recommendation on the candidate's performance in teaching, research, and service, as detailed in the University Administrative Regulations (AR 2:4) and further specified in the approved Special Title Series position description.

Special Title Series faculty members are expected to contribute to the mission and goals of the Department and/or Program to which they are appointed by a demonstrated and sustained commitment in undergraduate education and training; by contributing to research and scholarship at a level appropriate to the corresponding Distribution of Effort; and by serving the computer science community and the general public. The following guidelines are intended to help the members of the Faculty of the Department of Computer Science in evaluating candidates for tenure and promotion, as well as to help candidates understand the factors to be considered in their evaluation. These guidelines are meant to supplement but not replace the appropriate University of Kentucky Governing Regulations.

### **Tenure and promotion to Associate Professor**

**Teaching:** To be successful, the candidate for promotion and tenure should demonstrate a continuous record of effective high quality teaching and advising at the undergraduate level, including participation in undergraduate laboratory courses, as appropriate. A detailed teaching portfolio including a reflective statement on teaching philosophy, samples of teaching materials and assignments, and student and course evaluations will be the primary bases for assessing a candidate's level of commitment and teaching effectiveness. Additionally, letters from in-person peer evaluation of teaching by fellow faculty members will be used in evaluating the quality of teaching. Student letters, solicited at the point of the promotion and tenure review, will be taken into consideration. Student success after taking the courses given by the faculty can also be a factor to consider.

Additional significant measures of teaching contributions include demonstrated leadership in the evolving curriculum, including the introduction of new courses and/or new effective teaching techniques, and awards or other formal acknowledgments of teaching excellence at various levels. Direct involvement in the development and assessment of student and program learning outcomes is also important. Less direct efforts, such as mentoring or involvement with student organizations and student extra-curricular activities, also

constitute valued contributions to the educational mission of the Department and/or Program and will be taken into account. For the special title series, the anticipated teaching assignment as documented in the Distribution of Effort (DOE) is 80%.

Formal and informal advising of undergraduate students is an important aspect of teaching. Candidates must demonstrate a willingness to participate in meeting the Department's and/or Program's undergraduate advising needs, and provide effective and accessible advising support. The quantity and quality of the candidate's advising activity will be assessed through documentation provided in the teaching portfolio.

**Research and Scholarship:** The successful candidate for promotion and tenure must demonstrate original intellectual contributions to scholarship at a level commensurate with the Special Title Series assignment and the corresponding Distribution of Effort. Scholarly accomplishment will be measured by the quality and impact of original work published and/or by the level of extramural funding. Results of research efforts should be published in venues regarded as selective by peers in the candidate's discipline. Generally, these will be journals and conferences, in each case with an established reputation for quality and strict acceptance criteria. Supervising undergraduate research students (such as REU students), as well as collaborative research with colleagues and students, will be considered. Recognition will also be given for patents, software in public use, and other technology transfer based on innovative research.

In evaluating a candidate's research credentials and impact, the Department will seek the opinions of external reviewers who are regarded as the experts in the candidate's discipline. These opinions will play an important role in the evaluation. The frequency of the citation of the candidate's work may also be used to demonstrate the impact of his/her research work.

**Service:** The service responsibilities assigned to Assistant Professors are generally more modest than those of tenured faculty. Nevertheless, it is important that all faculty members contribute to the growth and development of the Department, College and University. Thus, to be successful a candidate should show evidence of service to the Department, College and University, to the candidate's research community, and to the general public, all at a level commensurate with the assignment. Evidence of service includes, but is not limited to, undergraduate and graduate student recruiting and advising; course coordination; committee work at the Department, College and University levels; and contributions to the peer-review process through reviewing, editorships, conference organization, etc.

## Promotion to Professor:

Promotion to Professor requires that a faculty member has realized the professional promise implicit in the award of tenure, both in the strength of his/her teaching, as well as in the quality of scholarship and contributions to the discipline.

Candidates for promotion to the rank of Professor must demonstrate excellence in teaching, research and service. In teaching, the individual is expected to have made sustained and high-quality contributions to the educational mission of the Department, as evidenced by the range of courses taught, the potential development of new courses, laboratories and modules, and by a continuing commitment to student advising. In research, it is expected that the individual will build upon the foundation established during the probationary period, and provide evidence of a substantial body of scholarly output well beyond that established at the point of promotion to Associate Professor as demonstrated by number, quality and impact of publications, textbooks and other materials, external awards and recognitions, and extramural funding, as appropriate. In the area of service, tenured faculty are expected to contribute more fully to the various service-related functions of the Department and the University as compared to probationary faculty. Candidates for promotion to the rank of Professor must demonstrate substantive service contributions that may include administrative roles, committee service, special projects and other activities commensurate with the level of effort documented in the DOE.



**Guidelines for Promotion and Tenure Special Title**

**College: Pigman College of Engineering**

**Unit: Computer Science**

**Approved by Provost: Tannock, 9/4/2024**

**Approved by College Dean: 2/28/2023**

**Approved by Unit Director (Indicating Approval by Faculty): 2/27/2023**

Approved by the CS faculty on February 27, 2023

Approved by Associate Dean for Faculty Affairs and Facilities, Dr. Michael Renfro on February 28, 2023

*Michael W. Renfro*