Faculty Member Contact Information

Name Contact Info	Dr. Igor Crk
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Department	Computer Science

1 Funded, 1 Unfunded URCA Assistant

	This position is **ONLY** open to students who have declared a major in this discipline.	**M**
	This project deals with social justice issues.	💙
	This project deals with sustainability (green) issues.	🍃
	This project deals with human health and wellness issues.	➕
	This project deals with community outreach.	✋
	This mentor's project is interdisciplinary in nature.	**I**

Are you willing to work with students from outside of your discipline? If yes, which other disciplines?

- Yes, my project is truly interdisciplinary, please also mark me as interested in taking students from these areas: Psychology, Music.

How many hours per week will your student(s) be required to work in this position? (Minimum is 6 hours per week; typical is 9)

- 9

Will it be possible for your student(s) to earn course credit?

- Yes, 3 credit hours of CS495 - Independent Study

Location of research/creative activities:

- Main campus or remote

Brief description of the nature of the research/creative activity?

The project involves mining a large number of MIDI music files for melodic sequences and other musical patterns from the information contained in or inferred from MIDI files (pitch, duration, velocity). Found patterns can be used as the basis for a number of studies of collections of music, including genre classification, localization, and change over time.

Brief description of student responsibilities?

Students will find/create/clean MIDI files (familiarity with UNIX tools is a plus), write code to translate MIDI into other representations and analyze them, and apply statistical methods and algorithms for subsequence detection.

URCA Assistant positions are designed to provide students with *research or creative activities* experience. As such, there should be measurable, appropriate outcome goals. What exactly should your student(s) have learned by the end of this experience?

Student(s) will learn to understand and manipulate files encoded with the MIDI standard, become familiar with some of the tools of computational musicology, and gain an understanding of current state of the art research in the intersection of computing and musicology.

Requirements of Students

If the position(s) require students to be available at certain times each week (as opposed to them being able to set their own hours) please indicate all required days and times:

- N/A

If the location of the research/creative activities involves off campus work, must students provide their own transportation?

- N/A

Must students have taken any prerequisite classes? Please list classes and preferred grades:

- N/A

Other requirements or notes to applicants:

None