

UNL-CSE 155T: CSI Informatics Using Python

Time and location: Fall, 2017, MWF 2:30– 3:20 PM, Avery Hall 108; Thu 9:30-10:45am, AVH 20 (lab)

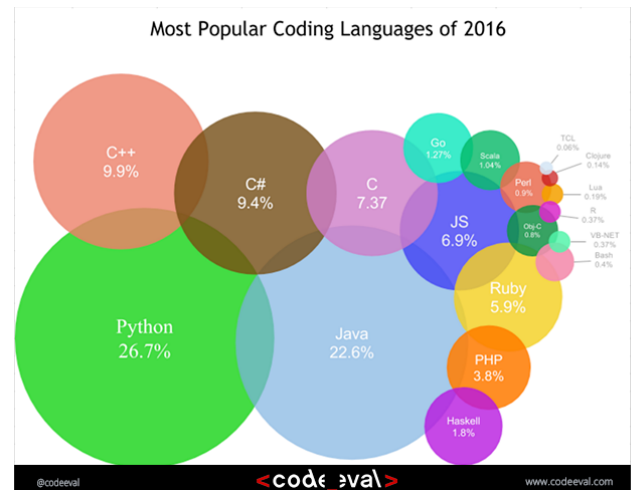
Instructor: Dr. Juan Cui, Department of Computer Science and Engineering

AVH 122B, 402-472-5023, jcui@unl.edu

Overview: Informatics techniques are now widely used by academic disciplines (e.g., library, online commerce, biology, medicine) as well as by many well-known high-tech companies (e.g., Amazon, Google, Microsoft). Meanwhile, Python has become ubiquitous computer science language in both academy and industry, especially in the Data Science and Artificial Intelligence professions. While getting you started with Python programming, CSCE-155T will introduce you the knowledge of problem solving methods, software development principles, computer programming, and computing in society. The overall objectives are: 1) to learn the theoretical ideas about Informatics and Python; 2) to learn how to apply informatics ideas to practical problems.

Open to both CS and non-CS majors: We strongly encourage students from Engineering, Life Science, Agriculture, humanity, and other fields who are interested in *informatics* and general *data processing* to attend this class. Specifically, students in this course will learn Python coding in text mining, web crawling and search engine, Google's MapReduce framework, GUI widgets, SQL database, and multicore programming. This course will prepare you for future CSCE311: data structures and algorithms for informatics which is given in Python.

Prerequisite: You are suggested to pass CSE Placement Exam or CSCE101, MATH 103 or equivalent before coming to this class. However, this is not compulsory if you can read chapters from the book "Computer Science Illuminated" by Nell Dale; John Lewis, for basic understanding of data types, arrays and algorithms. Our lab session will guide you step by step to learn the basics.



- Python has surpassed Java as the top language used to introduce U.S. students to programming and computer science, according to a new survey published by the Association for Computing Machinery (ACM).
- Python has a simpler syntax than Java or C++, which enables novices to start writing programs almost immediately, and it can be scaled up for heavy industrial use.



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