

Lab Presentation

2019-03-21

Merritt Burch

New Python words (to me)! → “Magic Numbers”

```
"""A simple die roller  
Merritt Burch mbb262"""  
  
import random  
  
t1 = random.randrange(1,6)  
t2 = random.randrange(1,6)  
roll = t1+t2  
}  
}
```

“Magic numbers”

Unique values with unexplained meaning

“Referred to as breaking one of the oldest rules of programming, dating back to the COBOL, FORTRAN and PL/1 manuals of the 1960s.”

New Python words/ideas (to me)! → Recursion

```
def numberof(thelist, v):
    """
    Returns the number of times v occurs in thelist.

    Parameter thelist: The list to count from
    Precondition: thelist is a list of ints

    Parameter v: The value to count
    Precondition: v is an int
    """

    if thelist == []:
        return 0
    elif thelist[0] == v:
        return 1 + numberof(thelist[1:], v)
    else:
        return 0 + numberof(thelist[1:], v)
```

Or `list.count()`

}

Function definition

}

Docstring

Base-case → (if written well)
saves computer from my wrath

}

Recursive case → count number
of instances

Simple and complex case
“Divide and conquer”

Liberty Hyde Bailey

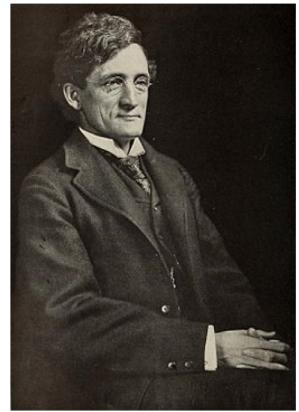
BS from Michigan State University

Developed and grew the field of horticulture and taxonomy; coined “cultivar”, “cultigen”, and “indigen”; rediscovered Mendel’s work in 1865 and 1869

Harvard, Founded Department of Horticulture and Landscape Gardening at MSU, Cornell University

1900 Member of AAAS, 1917 elected into National Academy of Sciences

Fun Fact: Published articles and book spanning over 81 years in all fields for almost every audience!





Paul C. Mangelsdorf

ScD from Harvard University (advisor Edward East)

With Reeves worked on the Tripartite Theory origin of maize, developed cytoplasmic male sterility and “restorer” genes for hybrid industry, characterization of *yellow1* locus

Harvard University

1945 elected member of the National Academy of Sciences

“Applied” to Harvard by translating paragraph to/from French and German. East’s response; two foreign languages were hardly enough for a graduate student, as science was becoming quite international. Nevertheless, East allowed Mangelsdorf to enroll.