

Victor Herrig
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Objective

To gain experience and skills by working in a field related to my studies before returning to study at a graduate level.

Related Work Experience

Coe College -- Tutor -- 2016 - 2017

Tutored college students in physics, math and computer science courses.

Coe College Computer Science Department -- Research -- Summer 2016

Used the Leap Motion device to measure the biomechanical restraints in three-dimensional input devices. Used Fitts Law to analyze different input schemes.

Coe College Physics Department -- Research -- Summer 2014, 2015

Worked with a small team to create dense and ¹⁰B-rich scintillating glasses and plastics for use in detectors. Later, co-lead a team to continue the projects. Started a collaboration with Clemson University on their first glass engineering project.

Education

Royal Holloway University of London

Egham, Surrey, UK

Accepted into and plan to attend the MSc Data Science and Analytics program
September 2017 - 2019

Coe College

Cedar Rapids, IA

B.A. in Physics & Computer Science, Minor in Mathematics

Graduated May 7, 2017

GPA - 3.47

Mason City High School

Mason City, Iowa

Graduated 2013

Computer Skills

- Proficient in C++ and C# (WinForms and WPF)
- Moderate proficiency in Python (with Anaconda extension), XAML and HTML
- Familiar with Java, CSS, Javascript, LISP, Prolog, and SQL/LINQ queries
- Experience using Web APIs to collect data; some experience scraping HTML pages
- Experience using Git with a team
- Experience working with Windows, Mac and Linux
- Proficient in Windows and Google offices, familiar with Mac office

- Experience working in Origin

Papers, Presentations and Projects

Created a Python (w/Anaconda) application to collect a list of politician Twitter handles, retrieve their tweets and predict the probability of their 2016 presidential votes by comparing the content of their Twitter feeds to the content of known voters' feeds. Used the Naive Bayes approach.

Created an application in WPF using a local database with one teammate to manage a school's tutoring system. The application allows the creation and modification of student and faculty accounts, either autonomously or by admin. It also allows management of available times by a weekly or daily basis by students or admin, creation and cancellation of tutoring appointments and submission of requests to tutor new courses.

Dat Vu, Makena Dettmann, Victor Herrig, Luiz G Jacobsohn, Matthew W Kielty, James Wetzel, Yasar Onel, Ugur Akgun, "A Neutron Detector Based On Boron-10 Enriched Scintillating Glasses", *Additive Manufacturing and Strategic Technologies in Advanced Ceramics: Ceramic Transactions* (2016).

Created a console-based C++ ridesharing application to match drivers and riders based on self-constructed time, date, rider, driver, location, etc. classes.

M Dettmann, V Herrig, J Maldonis, J Neuhaus, D Shrestha, P Rajbhandari, Z Thune, M Been, M Martinez-Szewczyk, V Khristenko, Y Onel, U Akgun. "Radiation Hard Plastic Scintillators for a New Generation of Detectors", *Journal of Instrumentation* (2016).

IJ Tillman, MA Dettmann, V Herrig, ZL Thune, AJ Zieser, SF Michalek, MO Been, MM Martinez-Szewczyk, HJ Koster, CJ Wilkinson, MW Kielty, LG Jacobsohn, U Akgun. "High-density scintillating glasses for a proton imaging detector", *Optical Materials* (2016)

Presented a talk entitled "Luminescence in Phosphate Glass" at Coe College Symposium Day 2016.

Awards

- Awarded a SCRIMP Fellowship to do research into gesture technology at the Coe College Mathematics & Computer Science Department
- Co-awarded the William "Cyclone" Kennedy Family Endowed Practicum to fund a research collaboration with Clemson University
- Awarded the Trustee scholarship by Coe College