

Samuel L. Clark

Software Engineer

EXPERIENCE

Brookhaven National Laboratory, Upton NY

Technology Engineer, July 2019 - Present

Established comprehensive development environment including tools and standard workflows for efficient development

Modernized 30+ year old control system codebase with full-stack Python integrations and packages

Provided training and support to developers on best-practices of version control and Python development

Designed and engineered user applications to interface with devices on large-scale experiment controls infrastructure

Saab Sensis, Syracuse NY

Systems Engineer, June 2018 - February 2019

Designed, implemented, and deployed data injection and recording tool for product integration testing

Refactored and improved existing web services to incorporate RESTful interfaces to support product integration testing

Worked in team of five maintaining and upgrading extensive, highly complex JavaEE-based monitoring and maintenance systems

EDUCATION

Georgia Institute of Technology, Atlanta GA

Computer Science, M.S., August 2021 - Present

Stony Brook University, Stony Brook NY

Computer Science, B.S., August 2015 - May 2019

Graduated *Cum Laude* with cumulative GPA of 3.60

Core courses cover programming design patterns, systems-level programming, Java user interface design, algorithm design & analysis, networking concepts, and database design

Introductions to artificial intelligence, machine learning & data science, and internet programming using JavaEE

Capstone project focusing on full-stack JavaEE development

COURSES

United States Particle Accelerator School

Accelerator Fundamentals, January 2020

Developed an understanding of physics-based concepts relating to particle accelerators under mentorship of field experts. Applied knowledge over two weeks through rigorous assignments, exams, experiments and benchtop work.

PROGRAMMING LANGUAGES

Python, JavaScript, Rust, Java, C/C++, Go

LIBRARIES

Python: Numpy, Keras, Tensorflow, Pandas, PyQt5, Django, Flask, PyTest

JavaScript: Vue, Angular, Express

Java: JavaFX, Spring

TOOLS

Git, GitLab, ClearCase, Jupyter, VirtualBox

Publications

Standardizing a Python Development Environment for Large Controls Systems, ICALEPCS 2021