Alexander Keiya Shoop

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EDUCATION:

Worcester Polytechnic Institute (WPI), Worcester, MA

Master of Science: Data Science, GPA: 3.7/4.0	Dec 2018
Master of Science: Financial Mathematics, GPA: 3.71/4.0	Dec 2017
Bachelors of Science: Actuarial Mathematics and Computer Science, GPA: 3.65/4.0, High Distinction	May 2016

EXPERIENCE:

Healthcare Data Analytics Intern, Harvard Pilgrim Health Care, Wellesley, MA   Jun 2018 – Jul 2018
- Supported the Market Analytics team in engaging in cost of care and trend discussions at the market and executive level
- Developed and presented a fully functional and validated Chi-Square Statistical Test Dashboard in Tableau with dynamic selections and integrated analytics data from existing business intelligence
- Participated and was a part of the winning cross-functional team that designed a mockup of the member experience view in the Employer Analytics Redesign Contest

ITS Helpdesk Specialist, WPI, Worcester, MA   Sep 2012 – May 2018
- Provided customer service and information technology support
- Resolved front-desk and call center support requests concerning technical issues
- Led and trained other student workers via one-on-ones

Actuarial Intern, Sun Life Financial, Wellesley, MA   Jun 2017 – Aug 2017
- Updated the experience studies for annual lapse for wealth management business and expenses for reinsurance business and designed a new death claim lag study using MS Excel and MS Access
- Researched the actuarial life insurance industry standards of practice and protocols

RELEVANT PROJECTS:

Big Data Project, Portfolio Risk Management using Big Data Technologies, WPI   Jan 2018 – Apr 2018
- Prototyped a platform for an asset manager that makes use of Apache Spark and Amazon Web Services (AWS)
- Performed sentiment analysis on SEC financial reports and Monte Carlo simulation to calculate the Value at risk (VaR)

Independent Study, Evaluating Early Stage FinTech Companies via Big Data Analytical Tools,   Aug 2017 – Dec 2017
WPI, Cambridge, MA
- Strategized with three graduate students and built an implementation plan for big data analytical projects to be carried by a 6-member undergraduate project team for sponsor companies Vestigo Ventures and Cogo Labs
- Catalogued FinTech startup investment deals received by VC firm Vestigo Ventures using proprietary SQL database
- Developed a probabilistic algorithmic prediction model for Cogo Labs on their ~3.0 petabytes consumer informational database

Major Qualifying Project (MQP), Development of an Operational Process for Continuous Delivery,   Oct 2015 – Dec 2015
WPI, Wall Street project center
- Researched continuous delivery tools for DevOps division of Barclays Investment Bank
- Developed an automated job creation strategy using Jenkins in coordination with Promoted Builds plugin for Prime Financing team
- Presented to the team's manager a visualization of software builds and promotions through pivot tables/charts

Software Engineering Project, WPI   Oct 2014 – Dec 2014
- Collaborated in a team of 12 to develop a Kanban-style project task manager application
- Programmed in Java and Swing using Agile and test-driven development

Interactive Qualifying Project (IQP), Analysis of Consumer Energy Behavior in the Arboretum,   May 2014 – Jun 2014
Worcester, England
- Completed a team project abroad in creating a baseline energy consumption profile of the Arboretum neighborhood in Worcester through door-to-door surveying and canvassing

SKILLS:

Programming languages: Python, R, JavaScript, SQL, Java
Software: Git, Numpy, Pandas, Scikit-learn, Hadoop, Cassandra, Spark, MongoDB, Tableau, OpenCV, Bloomberg Terminal
Languages: Trilingual (English, Japanese, French)

CERTIFICATIONS: Society of Actuaries (SOA) Exam P/1, Exam FM/2, Bloomberg Market Concepts