

Elizabeth Williams

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EDUCATION

Stony Brook University – *Stony Brook, NY* Expected: 05/2018
B.S. Computer Science, Applied Mathematics & Statistics GPA: 3.94
• Honors Computer Science, Honors College, CEAS Peer Mentor, Dean's List

EXPERIENCE

Student Software Developer - *Application Solutions at Stony Brook* 10/2016 - Present
• Working with ASP.NET, AngularJS, Bootstrap and SQL Server to implement bug fixes and features on web applications used by the University's administration departments.

Undergraduate Teaching Assistant - *Stony Brook University* 1/2016 - Present
• Aid students in debugging code in Java, designing and developing software from specifications, and understanding Object Oriented Programming concepts by holding 4 office hours weekly, responding to emails, and answering questions on the class discussion forum.

Teaching Assistant - *Girls Who Code* 6/2016 - 8/2016
• Assisted in the instruction of the Girls Who Code curriculum to a classroom of 20 11th and 12th grade girls through lecturing, creating supplemental content, and providing individual attention.
• Curriculum included Python, Object Oriented Programming, Robotics, and Web Development, culminating in final projects designed and created entirely by students.

Software Developer Intern - *Mapzen* 7/2015 - 8/2015
• Extended and streamlined webpages for visualizing API usage statistics from a JSON file by researching and implementing JavaScript visualization libraries.
• Created a map using Leaflet and Mapzen's Tangram Tile Service for viewing place names from a GeoJSON dataset to facilitate the discovery of missing data.

PROJECTS

Pokémon Data Visualizations - *Visualization Course Project* 10/2016 - 12/2016
• Used D3.js and the Pokémon dataset to create an interactive histogram, scatterplot, scatterplot matrix, correlation matrix, parallel coordinates, PCA plot, biplot, and MDS plot. Implemented brushing and linking between 4 displays.
• Used Pandas and scikit-learn to preprocess data, reduce data by sampling via k-means clustering, perform PCA decomposition, perform Multidimensional Scaling, and obtain correlations.

Bamboozled - *Databases Course Project* - github.com/ewilliams96/305_WebApp 10/2016 - 12/2016
• Worked in a team to design and develop a database to support the operations of a social network with a shopping component, such as registering, groups, pages, friends, posts, comments, targeted advertising, and sales.
• Used Flask to connect to the database and create a website with separate interfaces for general users, employees, and managers.

Pup Scouter - *Web App* - github.com/ewilliams96/Hack_Health_Pupper_App 9/2016
• Flask web application that uses the Reddit API and Clarifai API to retrieve and displays dog pictures with generated messages and up vote functionality. Won 'Most Original Hack' at HackHealth and featured on Clarifai's social media.

Paz2 - *Python Game* - github.com/ewilliams96/paz2 4/2016
• 2D Graphical Roguelike RPG style game. Built 2 distinct game states, consisting of a movement and collision system, and a turn based battle system.

CryptCoin - *Java, Computer Science B Course Project* 10/2015 - 11/2015
• Multithreaded application implementing a simplified cryptocurrency protocol, which involved validating incoming blocks and transactions against a block chain while listening for more incoming data. Documented design through UML diagrams.

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, SQL, HTML/CSS, MIPS Assembly, LaTeX
Frameworks/Libraries: Flask, scikit-learn, D3.js, JQuery, Bootstrap, Android
Software: Git, Terminal, PyCharm, Visual Studio, MySQL Workbench, SQL Server Management Studio, Android Studio, Eclipse, IntelliJ