WILLIAM BARTOS

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Software Skills

- Python, Java, JavaScript, C++, Unix/Bash, SQL, HTML, CSS, Git

Projects

Shop Drawing Stamp and Transmittal Generator – GitHub

- A Python based program to parse excel spreadsheets and generate PDF forms for project review processes
- Automates the administrative portion of an engineering review from over thirty minutes to less than one minute
- Worked with senior management to distribute the program companywide in accordance with company standards

Brilcast – A Microlocal Weather Service – brilcast.com

- Climate data is gathered from sensors wired to a Raspberry Pi, sent to a Python based webserver, and stored in a SQLite database
- Data is visualized in real time using D3.js on a website written with JavaScript, HTML and CSS

WikiCrawler– GitHub

- A Python based Wikipedia crawler that calculates the distance from a random article to any set article
- Results and statistics are output as JSON files and visualized with Pandas, Matplotlib and NumPy

Computation Fluid Dynamics in Python – GitHub

- A series of 1D and 2D finite difference solving CFD simulations written in Python utilizing advanced fluid mechanics

Personal Website – willbartos.io

- A simple personal website to display and write about my software projects
- Written in HTML and CSS, hosted on GitHub Pages

Education

Ying Wu College of Computing **New Jersey Institute of Technology** **Jan 2017-**

- Masters of Science, Computer Science

School of Engineering **Rutgers, the State University of New Jersey** **Fall 2010-May 2015**

- Bachelors of Science, Bioenvironmental Engineering, May 2015

Experience

Engineer/EIT **Maser Consulting P.A.** **June 2015-Jan 2017**

- Developed Python applications to automate review processes, leading to over a 90% reduction in task time
- Took the initiative and coordinated with management to develop software for business development
- Designed computational models for simulating large scale water distribution systems in WaterCAD
- Utilized GIS and SQL queries on geospatial databases to create high quality analytical maps
- Created new AutoCAD tools and standards which reduced drafting time, enhanced design quality, and minimized errors
- Engineered solutions for sophisticated water treatment systems including electrical and control system design
- Collaborated professionally with other engineers and agencies to design water solutions for multimillion dollar projects