

WILLIAM BARTOS

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Experience

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

- 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 to search New Jersey's geospatial databases to create high quality analytical maps
- Created new AutoCAD tools and techniques which significantly reduced drafting time, enhanced quality, and reduced errors
- Engineered solutions for water projects at Six Flags Great Adventure for new attractions and infrastructure improvements

Engineer **Rutgers University Water Resources Cooperative Extension** **Jan 2014- May 2015**

- Investigating the impact of rain gardens as part of a Regional Stormwater Management plan for the Troy Brook Watershed
- Engineering hydrologic models in HydroCAD to deliver stormwater diversion solutions utilizing best practices

Engineer **Alzo International and Pharmetic Manufacturing** **June 2014-Sept 2014**

- Participated in the research, testing, and development of novel chemical products for a wide range of industries

Education

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

- Bachelors of Science, Bioenvironmental Engineering, May 2015, GPA: 3.015
- Relevant Coursework: Intro to Computer Science (Java based course covering CS theory, algorithms and software engineering principles). Grade: A

Projects

Shop Drawing Stamp and Transmittal Generator – [GitHub](#)

- A Python based program to parse excel spreadsheets and generate forms for project review processes
- Automates the administrative portion of a submittal review from over thirty minutes to less than one minute
- Worked with management to distribute the program companywide and change 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 in HTML, CSS and JavaScript

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 current projects
- Written in pure HTML and CSS, hosted on GitHub Pages

Skills

Languages and Software: Python, Java, JavaScript, D3.js, SQL, HTML, CSS, Linux/UNIX, Git