Derek **Maciel**

derekmaciel.com github.com/dere

Education

Rutgers University	*New Brunswick, NJ*
B.S. IN COMPUTER SCIENCE	*Expected: Winter 2018*

- Courses: Compilers, Operating System Design, Distributed Systems, Computer Security
- Fall 2016 Mentor in the Rutgers USACS Computer Science Mentorship program

Experience

SIG: Susquehanna International Group	*Philadelphia, PA*
SOFTWARE DEVELOPMENT INTERN	*Jun. 2017 — Aug. 2017*

- Designed and implemented in C# a system for managing positions in financial instruments for a team of traders
- Wrote several scrapers and parsers to gather market data from various exchanges and import it into the application
- Heavily utilized Test-Driven Development and modular code design to reduce trading losses caused by bugs
- Collaborated closely with multiple teams and gathered trader feedback during the design process
- Project improves position analysis accuracy while saving an estimated 20-40 man-hours per month for the traders

Open System Solutions at Rutgers University	*New Brunswick, NJ*
STUDENT SYSTEMS PROGRAMMER	*Jan. 2016 — Jan. 2018*

- Led a team of four to redesign and implement new key features in Go: The Rutgers URL Shortener
    - Organized meetings to brainstorm and triage new features and delegate tasks.
    - Designed and implemented a RESTFul API using Flask-RESTful to interact with a new AngularJS front-end
    - Rewrote legacy MongoDB abstraction layer to use the popular Python MongoDB ODM MongoEngine
    - Extended so-called "all or nothing" user permission system to add additional permission levels
- Fixed critical bugs and added CSV exporting to a employee hours-tracking web app in Python using Flask and MySQL
- Developed a command-line app in Python using rsync to improve the Rutgers University Linux distribution mirrors
- Configured and maintained CentOS Linux and Solaris servers with Salt and Cobbler
- Utilized and extended open source software such as Koji and Mock to automate building RPM software packages
- Improved onboarding and training documentation for new employees

Skills

Languages	Python, C, C#, JavaScript, HTML/CSS, Bash Shell Scripting
Tools/Frameworks	Linux, Git, Flask, Salt, MySQL, MongoDB, Node.js, Phabricator, JIRA

Projects

Strawberry Bot	*Personal Project*

GITHUB.COM/DERE/STRAWBERRYBOT

- Music-playing bot for the voice chat program Discord, written in JavaScript using Node.js, deployed on Debian Linux
- Uses the Discord API and youtube-dl to accept YouTube song requests and stream them into the voice channel
- Plugin system allows functionality to be selectively disabled and allows users to extend the bot for other functions

Salt	*Open Source Contributor*

GITHUB.COM/SALTSTACK/SALT

- Reported and fixed a High Priority bug with RPM package installation (Pull Request #35119).

AUTOS	*Personal Project*

GITHUB.COM/DERE/AUTOS

- A Unix-Inspired Toy Operating System for the x86 architecture written from scratch in C and assembly