David Sayles

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Education

Bachelor of Science, Computer Science and Digital Art
Union College, Schenectady, NY, 12308
Bachelors Thesis: Evofab: A Fully Embodied Evolutionary Fabricator.
- Wrote an Interactive Evolutionary Algorithm to optimize movement instructions for a 3D printer in order to create specific patterns.
- Co-Wrote conference paper with thesis advisor based on successful findings.

Skills

Languages: Python, C++
Development: Vim, Version Control (git), MacOS, Linux
Spoken Languages: English (native), Japanese (conversational)
Software integration, writing software specs, cross team communication

Publications

J. Rieffel and D. Sayles. EvoFab: A Fully Embodied Evolutionary Fabricator.
In: 9th International Converence on Evolvable Systems, Sep 6 2010

Experience

Software Developer   Apr 2012 - Present
Makerbot Industries, Brooklyn, NY
- Architected and wrote *kaiten*, the embedded python server that schedules and organizes processes such as I/O, printing, firmware uploading and other user facing jobs on the new family of *MakerBot* Desktop 3D Printers. Interfaces with the desktop *MakerWare* software stack for remote printing.
- Primary developer on *conveyor*, the current backend server for the *MakerWare* software stack. *conveyor* takes print job parameters from the *MakerWare* GUI, and dispatches to sub-components ranging from the *MiracleGrue* slicer to the *s3g* print driver.
- Primary developer on *Digitizer Desktop 3D Scanner* integration with the *MakerWare* GUI and *libdigitzer* 3D geometry packages.
- Primary developer on *s3g* printer driver and machine code utility package for use with *MakerWare* (https://github.com/makerbot/s3g).
- Exercised meticulous test driven development protocol; printer driver has roughly 100% code coverage.

Software Technician   Jan 2012 - Apr 2012
Makerbot Industries, Brooklyn, NY
- Wrote extensive Testing/Quality Assurance documentation for software/hardware.

Board Member   Dec 2012 - Present
Matthew Sayles Foundation, Ridgewood, NJ
- Sit on the Executive board for 501c3 Not-For-Profit Organization, geared towards raising awareness of Salivary Gland Cancer.
- Run bi-monthly meetings.
- Manage vendors and equipment for Saylestock Music Festival.
- Write grants to obtain donations from patrons.

Awards

Eagle Scount, Boy Scout Troop 8, Ridgewood NJ
Deans List, 2012