Jarrod D. Dunne

Houston, TX • (919) 791-9255 • jarrodddunne@gmail.com • jddunne.com • linkedin.com/in/jarroddunne

Education

Rice University — Houston, TX
B.S. Computer Science — Aug '16 – May '20

Franklin Academy High School — Wake Forest, NC
Valedictorian — Jul '10 – Jun '15

Work Experience

Freelance Software Engineer — Raleigh, NC
Jarrod Dunne's Software Services — Apr '14 – Present

Developed software solutions for two clients, utilizing Excel, Python, and bash scripting. Automated and digitalized a mass mailing list, extracted and culminated individual performance metric data from multiple sources, and analyzed change of performance over multiple years.

Individual Projects and Research

LAT: Location Aware Thermostat — Phoenix, AZ
Intel International Science and Engineering Fair (ISEF) — Jul '12 – May '13

Designed, built, and programmed a Location Aware Thermostat (LAT) for the 2013 Intel International Science and Engineering Fair (ISEF). Wrote a servlet for Apache Tomcat running on a Raspberry Pi, and interfaced Raspberry Pi to existing HVAC system. Wrote an Android Application to send location data and schedule preferences to the web server. Won 3rd Place Computer Science Division at Intel ISEF, Mobile Application Award, and Award for Excellence in Science and Engineering.

SMARTT: Safety Maximizing Application with Real-Time Traffic Signs — Raleigh, NC
North Carolina Science and Engineering Fair (NCSEF) — Jul '13 – Apr '14

Implemented a traffic system involving smart speed limit signs with digital displays and a Raspberry Pi running a Tomcat Webserver. Wrote separate Android applications were programmed for user and administrator. Built a speed limit sign with a Raspberry Pi to broadcast speed limit and relevant traffic data to user application, allowing for variable speed limits depending upon weather, school zones, etc. Won 3rd Place Technology/Engineering Division at NC Science and Engineering Fair (NCSEF), Yale Science and Engineering Award, and Air Force Award.

Non-Standard Dice Modeling — Greenville, NC
Summer Ventures in Science and Math at East Carolina University — Jun '13 – Jul '13

Research involving non-standard dice combinations at NC Summer Ventures in Science and Math at East Carolina University. Developed algorithms to optimize factoring of special polynomials representing standard dice, in order to mathematically determine non-standard dice combination. Implemented such algorithms in Java to compute new non-standard n-sided dice. Won Catalyst Award, top research paper at ECU Summer Ventures of 125 students.

Community Service

Eagle Scout Project — Raleigh, NC, Roanoke, VA
Community Outreach Program of Roanoke, VA — Jul '13 – Nov '13

Planned and lead the construction of an eight laptop computer lab for the Community Outreach Program of Roanoke, VA, to teach K-8 students computer literacy skills. Involved 150 person-hours, and leading over 25 scouts, adults, and students in Raleigh, NC and Roanoke, VA.

Senior Project — Wake Forest, NC
Franklin Academy High School — Jul '14 – May '15

Designed course material for a class on Arduino circuit design and programming to middle school students at Franklin Academy High School in Wake Forest, NC. Taught a class of ten students basic circuitry, programming in the C programming language, and embedded controller design and Arduino prototyping.

Extracurricular Activities

Boy Scouts of America — Raleigh, NC
Eagle Scout, Senior Patrol Leader — Jul '08 – Apr '15

Led BSA Troop 364 in Raleigh, NC, consisting of over 60 Scouts and adults. Participated in 2010 National Jamboree in Fort AP Hill, with over 50,000 scouts and adults in attendance. Also participated in Philmont in 2012, involving ten Scouts and two adults over a ten day, 100 mile backpacking trip through Cimarron, NM.

Skills

Experience with Java, Python, Debian Linux, Android application development, Arduino prototyping, and Raspberry Pi prototyping. Exposure to C, C++, JavaScript, Scheme, Lisp, SAS Web Design, LaTeX, Apache Tomcat, MS Office, Autodesk, and Git. Excellent communication and leadership skills.