CONNOR TAFFE

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EXPERIENCE

Summer Undergraduate Program of Entrepreneurship and Research (SUPER), UALR Summer 2015
SUPER Scholar *Little Rock, AR*

· Creation of an Android App to interface with a vehicle's OBD-II system via Bluetooth transmitter.

Emerging Analytics Center (EAC), UALR October 2014 - Present
Software Engineering Intern *Little Rock, AR*

· Presented at IEEE VR 2015 on the integration of Unity 3D, Qualcomm's Vuforia, and Intel's OpenCV to create interactive Augmented Reality (AR) applications (presentation).
· Worked under Dr. Carolina Cruz-Neira, the inventor of the CAVE system.
· Developed Data Visualization solutions for Oculus Rift, CAVE system.
· Used Unity 3D (scripting with C#) for 3D programming and model manipulation.
· Used OpenGL with VRJuggler and OmegaLib for CAVE demo pogramming.

BioInformatics August - October 2014
Research Assistant *Little Rock, AR*

· Preliminary work on refactoring a genetic algorithm codebase with an emphasis on common stylistic guidelines and concurrency.

CentOS Server Wordpress Installation August 2014
Freelance Developer

· Installed Wordpress on a pre-imaged CentOS server.
· Set up a mysql database and edited Wordpress configs.

Mesher July - August 2014
Freelance Developer

· Client side stl-editing application built atop THREE.js, a popular WebGL interface.
· Provides a clean interface to many of the common operations done on STL models before 3D printing.
· This application provides a interactable 3D interface for models generated from STL files.
· Provides multiple modification and save options.

Future Tek Inc. June - August 2012
Contract Graphic Designer *Columbus, MS*

· Worked as a contract graphic designer to produce a new catalog, logo, and social media presence. All graphics were designed personally with Inkscape and Gimp.
· This catalog is still in use (link).

EDUCATION

University of Arkansas, Little Rock June 2018
B.S. in Computer Science

· Courses: Data Structures and Algorithms, Computer Systems and Assembly Language, Calculus II, Operating Systems, Databases, and Discrete Math.

Cabot High School 2014

Arkansas School for Mathematics, Sciences, and the Arts 2013 - 2014

· First place Intel International Science and Engineering Fair project in Materials Engineering at the local level on my research into 3D printing large angles.
· Courses: Computer Programming II

Mississippi School for Mathematics and Sciences 2012 - 2013

PERSONAL PROJECTS

Lispy September - November 2014

· Lisp-like interpreter written in Python
· Producer-consumer threading optimizes stages
· Lazy-evaluation of defined variables
· lambda functions and recursive lambdas
· EBNF formal definition of the language

utf8 / utf8plus February 2015 - Present

· utf8 parser written in C, and C++ wrapper.
· RFC 3629 compliant.
· Quick encoding/decoding of runes, rune validation, and string parsing.
· Reports errors within the rune and codepoint (int32_t) types using approprate non-valid values in C.
· Use of the `utf8::rune::exception` class to report errors in C++, or appropriate C++ standard exception.

bf November 2014

· Optimizing BrainFuck just-in-time compiler
· Emits x86_64 instructions to executable mmap'd pages
· Producer-Consumer concurrent architecture with a REPL interface

TECHNICAL STRENGTHS

General Programming

Languages:	C#, C++, C, Go, Java, Python, Ruby, Rust
Libraries/Projects:	GTK+, OmegaLib, OpenGL, Unity3D, VRJuggler
Networking:	C, C++, Java, Go, Python
Version Control Systems:	git

Operating Systems

Android:	Familiarity with Android, the Android build toolchain, debugging, etc.
BSD:	OpenBSD, FreeBSD, Dragonfly BSD, OS X
Linux:	CentOS, Debian, Fedora, Manjaro, Red Hat Linux, Ubuntu

Unix/Linux Systems

Longtime Linux user. Experienced with system utilities, commands, userspace programming, and light kernel programming.

Web Programming

Server side:	Node.js, Python, Go, Java, Php, SQL (MySQL, PostgreSQL, SQLite), NoSQL (Redis)
Client side:	JavaScript (JQuery, THREE.js, etc.), CSS, (X)HTML
Servers:	Apache, nginx, lighttpd, Node.js, Go