

CONNOR TAFFE

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EXPERIENCE

Summer Undergraduate Program of Entrepreneurship and Research (SUPER),

UALR

SUPER Scholar

Summer 2015

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

Software Engineering Intern

October 2014 - Present

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 programming.

BioInformatics

Research Assistant

August - October 2014

Little Rock, AR

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

CentOS Server Wordpress Installation

Freelance Developer

August 2014

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

[Mesher](#)

Freelance Developer

July - August 2014

- 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.

Contract Graphic Designer

June - August 2012

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 appropriate 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: API level 15+, familiarity with Support Library v4 and v7
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