George "Quint" GUVERNATOR V

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EDUCATION

Fall 2013 -The College of William & Mary in Williamsburg, VA

Spring 2017 Studying Linguistics and Computer Science

Cumulative G.P.A. 3.7; Dean's List for 4 semesters

Fall 2015 Universiteit Leiden in Leiden, the Netherlands

Courses in Linguistics, Meta-Science, and Social Sciences

Norfolk Academy in Norfolk, VA 2006-2013

Advanced courses in French, German, Mathematics, and Music Theory

Graduated with Honors

EMPLOYMENT EXPERIENCE

Summer 2017 API Engineer at Snagajob in Richmond, VA

(ongoing) Built REST backend microservices for a progressive work management and scheduling we-

> bapp. Worked in an Agile environment adding features according to user stories. Overhauled time, time zone, and notification behavior across several projects. Reimplemented a geolocal

project for national scale.

Spring 2015 -Freelance Web Developer in Williamsburg, VA

Spring 2017 Designed, built, and maintained Ruby on Rails webapps and their databases. Evaluated and

reviewed research papers for implementation feasibility. Provided technical consultation to

local entrepreneurs.

Summer 2013 & Software & Computer Engineering at Valeo Service, USA in Newport News, VA

Summer 2015 Designed and built internal software for a warehouse environment. Deployed new software

and systems. Maintained company servers. Provided technical support to employees.

Software Development Intern at the Institute for the Theory and Practice of Interna-Fall & Spring 2014

tional Relations at William & Mary

Maintained Ruby on Rails websites. Manipulated and interpreted technical papers using machine learning algorithms. Developed text mining processes. Designed and maintained

internal software.

RESEARCH EXPERIENCE

Spring 2015 Sensation and Perception through Augmented-Reality Audio with the Small Hall (ongoing)

Makerspace and the Physics department at William & Mary

Building and analyzing a system for sensory substitution or augmentation using electrical sensors as an artificial organ, augmented-reality audio as a human-machine interface, and a

microprocessor development board for signal-processing.

Summer 2014 Learning Patterns of Mobile Interface Design with the Department of Engineering

and Sciences at the University of Colorado, Colorado Springs

Studying the effectiveness of machine learning techniques to analyze the quality of Android applications' graphical design.

¹PGP Fingerprint: 65A6 6455 A2A5 CAC8 13E4 93FB FC13 890A 40FE EF7B

LINGUISTICS RESEARCH INTERESTS

- Computational linguistics research and development, especially related to cognitive science or computational cognitive modelling
- Theoretical work with perceptual biases and heuristics as manifest in ideolect
- Language documentation, analysis, and preservation with an emphasis on community empowerment

COMPUTER SCIENCE RESEARCH INTERESTS

- Programming language development, especially concerning memory safety, thread safety, and strong typing
- Computational linguistics research and development, especially related to cognitive science or computational cognitive modelling
- Developing powerful, flexible tools for computer power users and researchers outside the Software Development community
- Design patterns within concurrent and functional programming

TECHNICAL SKILLS AND EXPERIENCE

- Proficient in Python (since 2008), C (since 2013), and C[#] (since 2017). Proficient Linux systems programmer. Comfortable with Rust, Haskell, Ruby, Go, Java (the JVM and Android), and Shell scripting. Familiar with C++, Lua, and MIPS assembly.
- Comfortable with Ruby/Rails, Javascript (including Node, Angular, JQuery), HTML, and CSS (and its derivatives).
- Proficient at designing RESTful web APIs. Familiar with and enthusiastic about GraphQL.
- Experienced at creating, managing, and working with PostgreSQL and MongoDB databases.
- Experienced building, configuring, and maintaining GNU/Linux machines, both professionally and for fun, using various distributions. An official Arch Linux pre-release package tester.
- Active in the open-source software community; see quint.guvernator.net for projects. Proficient with git and related tools.
- Comfortable reading and writing language grammars (EBNF/YACC and Field Linguistics alike).
- Executed a technical review of van Baarsen's GitLab Cookbook (Pact Publishing, Dec. 2014).
- Designed test-cases and adapted project specifications for *Data Structures* course at William & Mary.
- Copy edited for *The Flat Hat*, the William & Mary student newspaper.
- Hosted a show at and maintained the website of the WCWM student FM and internet radio station.
- Volunteered at and maintained the website of *The Meridian* student coffeehouse.
- Amateur Extra Class licensed in the United States; this is the most permissive license and grants all privileges on all US amateur bands.
- Designed sound for films, theatrical productions, and music side-projects in Ableton Live.
- Comfortable with LATEX and modern desktop office suites.

ADMINISTRATIVE EXPERIENCE

- Member Board of Directors, HackRVA, a makerspace in Richmond, VA.
- Former Board Member and User, Small Hall Makerspace in the William & Mary Physics department.
- Retired Member, Revspace, a hackerspace in Den Haag, Netherlands.

2018 HACKERSPACE PROJECTS

- Built and programmed the electronic name badge for the RVAsec security conference in Richmond, VA using a PIC32MX MCU on a custom circuitboard. Implemented a two-channel wavetable audio synthesizer on the badge and a composition companion app for Linux, both in C. Helped coordinate this twenty-person project over nine months.
- Replaced the internals of a Casio calculator watch with a custom, hand-soldered MSP430-based board with 0201-sized surface mount components. Submitted patches in C and MSP430 assembly to the upstream maintainer.
- Manufactured made-to-order custom mechanical keyboards for work colleagues using a laser cutter, 3D printer, and reverse-engineered bluetooth chips. Managed this ten-person project over two months.
- Built a distributed thermostat on the ESP8266 platform using Lua, C, and the MQTT message bus.
- Composed 8-bit music on the Nintendo Gameboy using homebrew software synthesizers mGB & LSDj.
- Machine sewed a flag for the HackRVA maker space.

REFERENCES

Jack Martin

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Daniel Parker

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