

DVTT Resume

Dustin Van Tate Testa

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A software engineer with a passion for learning and experience working with large codebases

Skills

Programming since 2011

C++ & C since 2011 POSIX, pthreads, Qt, GMP, cmake, openmp, GDB, valgrind, etc.

TypeScript & JavaScript since 2014 Node, WebGL, threejs, express, WebAssembly, echarts, Webpack React, etc.

Linux since 2015 Packaging, BASH, SQL, systemd, sockets, nginx, rclone, AWS, docker, etc.

Python since 2013 Flask, PIP, textblob, pygtk, Pandas, etc.

HTML, CSS, JS Since 2010 I've created 15+ websites (ie - stonks.bodge.dev, xss.software)

Limited others Experiments with functional languages like Haskell as well as compilation targets like WebAssembly and MIPS

Other Skills

- Using Arch Linux as primary OS since 2015
- Maintaining Linux servers since 2016
- Additional Languages: SQL, REST, RSS, LaTeX, Prolog, Haskell, POV-Ray, SVG
- Software: Excel, Wings3D, SketchUp, OBS, git, vim, screen, kdenlive
- Languages: English, Spanish (conversational), Danish (literate)
- Hobbies: Aquaculture (planted tanks), CAD/CG, Video Editing, Metal Casting, Investing (options, stocks, ETFs)

Formal Experience

Recent Employment

Information Security Corporation: Software Engineer (2022.1 - present)

- Improving Linux support for national security critical software
- Working with very large codebases spanning decades of development
- Skills used: C, C++, Linux, MSVC, BASH, RHEL, POSIX, file systems, cryptography, etc.

Upwork.com: Freelance Software Engineer (2021.5 - 2021.9)

- Worked multiple jobs in various industries using while gaining new skills and visiting family
- Skills used: Software Engineering, Consulting, Full-stack Development, System Administration
- Languages: TypeScript, C, C++, Python, BASH, Haskell, AWS, SQL
- Skills learned: Webpack, Various ORM libraries, Onesignal, Vue, etc.
- Achievements: Upwork's "Rising Talent" and "Top Rated" badges

CAEMate: Software Developer (2020.6 - 2020.12)

- Hired through freelancing site Upwork.com
- Helped refactor a large codebase spanning 5 years of development
- Worked primarily on the 3D editor for westatix.com
- Skills used: JavaScript, WebGL, Webassembly, jQuery, C/C++, Linux, Docker, Git, Threejs, MVC, etc.

StrattyX, Inc.: Senior Software Engineer (2019.4 - 2019.12)

- Reached out to by CEO with a name, a logo, and a dream to democratize algorithmic trading
- **Led development** of company's software products
- Chose to create a distributed language system to power the company's product
- Pitched Company at TechCrunch 2019 where we were finalists
- Spent summer of 2019 building out product at the Harvard Innovation Lab
- Skills used: Startups, Marketing, PM, SWE, AWS, MySQL, Node.js, React Native, Python, React.js, Linux, REST, investing, NLP, AI, etc.

Other Experience

- Active monitor (volunteer) at CBCM (2022 - present)
- Programming Lead For IIT NASA Robotic Mining Competition Team (2019 - 2020)

- IIT Computer Science Teaching Assistant (2019)
- Macon-Bibb Board of Education Technology Apprenticeship (2016 - 2018)
- Programming Lead for Bibb County FRC Team 4941 (2014 - 2018)
- Councillor at Mercer Creative Computer Camps (2016 - 2018)
- Small Business Owner, Elemental Designs (2012 - 2014)
 - Re-cast scrap metal from old electronics into jewelry
 - Several thousand dollars in gross revenue
 - Recognized by Macon Telegraph as Youngest seller in Macon Arts Gallery

Personal Projects

Corki Bot

- Discord chatbot created for videogame communities
- Features a language-based rule-engine, web-portal, rss-feed forwarding, game integrations, etc.
- Added to Discord servers with a total of over 200,000 members
- Created using Node.js 2017 - 2019, but maintained to present
GitHub.com/dvtate/Corki
- Website: corki.js.org

Programming languages

Postfix Haskell

- A stack-based pure-functional programming language that compiles to WebAssembly
- Moving tracing garbage collector included in runtime written by hand in WebAssembly
- Compiler written in TypeScript 2020-2022: GitHub.com/dvtate/postfix-haskell

SCL

- A language with a comfortable syntax that focuses on providing an improved async experience
- Compiler+VM written in C++ in 2020: GitHub.com/dvtate/SCL
- Implementation includes: Tracing Garbage Collector, Stack-based VM, event-loop, shift-reduce parser, etc.

YodaScript

- My first two postfix scripting languages
- Version 2 written in C++ in 2019: GitHub.com/dvtate/YodaScript
- Version 1 written in C++ 2016 - 2018: GitHub.com/dvtate/old-yoda

Education

Illinois Institute of Technology

Chicago, Illinois | Computer Science | 2018 - 2021

- 3.4 GPA, 2018 Dean's list, Heald Scholar
- Programming Lead for NASA RMC Robotics Team (2019 - 2020)

Howard High School

Macon, Georgia | Foreign Language Pathway | 2014 - 2018

- 3.9 GPA Top 5%, 11 College-level classes
- Highest average: AP Computer Science, AP World History, AP Chemistry