

Jacob Alexander Della

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Technical Skills:

- Programming Languages: Java, JavaScript, Python, LUA \ Expression2, C, C++
- Formatting Languages: CSS, HTML, XML
- Software: VIM, Windows, Eclipse Java IDE, PyCharm IDE, Dev-C++ IDE, iOS, Mac OS, Linux, Android, QEMU/KVM, VMWare Workstation, VirtualBox, OpenVPN, Git SCM, VSCode Text Editor, MySQL Workbench

Summary of Qualifications:

- Intermediate level coder with a large amount of experience with technology
- Large amounts of experience with numerous different flavors of Linux
- Experience with coordinating large groups of individuals to accomplish a task on time

Education:

- Bachelor of Science in Computer Science & Minor of Science in Mathematics **12/18 - 12/21**
Towson University, Towson, MD
3.12 GPA
- Associate of Science in Computer Science **12/18**
Community College of Baltimore County, Essex, MD

Relevant Coursework:

- Java Programming 1, Advanced Java Programming 2, Introduction to C++, Systems Development Lifecycle, Discrete Mathematics, Linear Algebra, Data Structures and Algorithms, Calculus 1,2, & 3, Physics 1, Object Oriented Design (Design patterns), Operating Systems, Web Development, Software Engineering

Work Experience:

IT Help Desk

Hamel Builders, Elkridge, MD

02/19 - Present

- Effectively troubleshooted and resolved issues on user systems.
- Researched and investigated IT solutions to make turnaround time on common issues as fast as possible.
- Managed, securely wiped and recycled obsolete hardware.
- Performed inventory management on hardware.

Applied Projects:

Jdella1996.net: <http://www.jdella1996.net>

02/20 - Present

- Utilizes React front end to render out JSON data from an Express API
- Uses VirtualDOM for CSS page transitions.
- Express API Server and React Serve hosted on my home server.
- Configured CNAME records and URL redirects utilizing Dynamic DNS

Jag ID facial recognition system: <https://gitlab.com/jdella1996/jagid/>

09/19 – 12/19

- Lead the development of the API, database and general architecture of the application.
- Administrated and designed schemas for use in the project's MySQL database.
- Utilized PostMan to send POST and GET requests to test API features without finished Android app.
- JagID is designed to invoke Python scripts with arguments from within NodeJS and based on the outputs of the Python scripts the API will react in certain ways.
- Depending on a training bit, which is received from the database, the API will invoke a face training session via a Python script and change the training bit.
- This dynamically generates folders and upload endpoints based on user's ID as defined in MySQL upon login.
- RimRaf node module is used heavily for bulk deleting of files during the training and verification process.
- Based on the output of the Python scripts the API will also SSH into a Raspberry Pi to short GPIO pins and play noises depending on if the authentication was successful or not.
- Utilizes OpenCV and NumPy arrays for picture verification and training data creation.

Full-stack Reddit clone: <https://github.com/tulachan/cosc484projct>

09/19 – 12/19

- Lead the development of the API, it supports account creation, post creation, subreddit creation, like / unliking posts, post deletion, deleting posts and many additional ones within the API
- Developed NodeJS endpoints and API to hook into MySQL database server for use with a React frontend.
- Deployed MySQL docker image.
- Configured, administrated users and designed schemas for project's MySQL database.
- Managed and coordinated group effort to get project finished before deadline.
- Deployed website inside a virtual machine using the Ubuntu 18.04 LTS on my home server.
- Heavily utilizes Express to keep track of user session.
- Utilized multiple Git branches to keep developmental inertia going.

Portfolio Website: <http://www.jacobian.online>

06/19 – 02/20

- Configured CNAME records and URL redirects utilizing Dynamic DNS
- Designed and built a Django Application
- Utilized HTML and CSS to design a portfolio website

Expression 2 High Speed Train in Garry's Mod

05/19 - 06/19

- Developed a script in Garrys Mod that controlled a train with throttle input, utilizing information like pitch, throttle position yaw, roll, and speed, it can speed up, slow down and govern speed based on these parameters.

Home Server Admin

01/18 - Present

- Experience with setting up and configuring Docker containers
- Investigated parts and built the server using off the shelf components.
- Routinely performed maintenance as well as hardware and software upgrades as needed.
- Hosted and administrated servers for: SSH, OpenVPN AS, TeamSpeak, Minecraft, DynamicDNS, Source Dedicated, Plex, and MySQL

Text Adventure Game

04/17 – 05/17

- Modified a Java binary tree library to allow 3 nodes to be used per level instead of the 2. Modified methods and added new methods for traversal and searching.