

# Joe Nathan Abellard

#### SOFTWARE ENGINEER

Brooklyn, NY

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## **Education**

#### **New York City College of Technology**

Brooklyn, NY

BTECH IN COMPUTER ENGINEERING

Sep. 2012 - June 2017

- 3.6/4.0 GPA and Magna Cum Laude distinction.
- · Served as Academic Excellence Chairperson for the school's National Society of Black Engineers (NSBE) chapter.

## Skills\_\_\_\_

**Programming Languages** C, C++, Python, Javascript, CSS, and HTML

**Web Frameworks** Node, Express, Django, and Django Rest Framework

**Servers and Databases** Apache, Nginx, WSGI, and Gunicorn; MySQL, PostgreSQL, Mongodb, and Redis **Development Tools and Devops** Git, and Gulp; SSH, Bash, Shell Scripting, Docker, Kubernetes, and AWS devops tools

**API Development** HTTP/HTTPS, REST, GraphQL, OAuth, JWT, RAML, and Openapi/Swagger

Cloud Platforms AWS, Digital Ocean, and Heroku

System Programming

UNIX/Linux system programming API, Linux Kernel, TCP/IP Sockets, Pthreads, C++ STL, Glibc, GCC, GDB, Make, Bin

Yacc/Bison, Lex/Flex, and Doxygen

## **Projects**

#### **Text Storage and Sharing Platform**

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- Integrated with the Stripe API to manage subscriptions and payments.
- Implemented Oauth authentication with Google+ as a provider.
- Implemented API admin interface to execute maintenance tasks.
- Built CI/CD pipeline with AWS CodePipeline to automate deployments.
- Deployed to AWS Elastic Beanstalk, and used AWS S3 to store static and media assets.
- Documented API endpoints with Openapi.

## Youtube Video to Audio Converter/Downloader Service

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- Implemented asyncronous video conversion with Celery and RabbitMQ.
- Implemented API admin interface to execute maintenance tasks.
- Implemented throttling policies to limit user request rates.
- · Documented API endpoints with Openapi.

#### We Build Black Members Portal API

BACKEND LEAD

- Integrated with the Stripe API to handle subscriptions and payments.
- Implemented Oauth authentication with Google+ as a provider.
- Documented API endpoints with Openapi.

## **Base 64 Encoder/Decoder Microservice**

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- Containerized the service with Docker and deployed it to AWS Elastic Beanstalk.
- Built a CI/CD pipeline with AWS CodePipeline to automate deployments.

## **Data Structure Library**

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• Implemented support for the following containers: linked list, stack, queue, vector, hash table, binary search tree, binary heap, and graph.

## **UNIX/Linux Shell**

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• Implemented the following features: bash-like grammar, command line editing, job control, built-in commands, and man page-style documentation.

# **Work Experience**

## **Freelance Software Development**

Brooklyn, NY

FREELANCE SOFTWARE ENGINEER

Nov. 2018 - Present

• Freelance software development.

Dialogue Direct

New York, NY

IT COORDINATOR

• Configured and managed desktops, laptops, mobile devices, office phones, and printers.

May 2018 - Nov. 2018

- Provided on-site and remote tech support on demand.
- Administer on-site file server and domain controller.
- Maintained websites and web hosting configurations.
- Integrated email encryption service to meet critical business needs.
- · Maintained business relationships with third party vendors such as PC Connection, T-Mobile, and Apple.

## Peer-Led Team Learning Program, New York City College of Technology

Brooklyn, NY

PEER LEADER

Sep. 2013 - June 2017

- Led workshops that engage students in teamwork to solve challenging math problems.
- Applied various learning theories to foster students' development and problem solving skills.