

NATHAN SHUMMOOGUM

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EXPERIENCE

Software Engineer (Full Stack)	DeepSight	September 2019 - Present
<ul style="list-style-type: none">Full stack development for augmented reality platform<ul style="list-style-type: none">AR Engine: C/C++, OpenGLWeb based studio: WebAssembly, React.js, Node.js, WebGLHoloLens App: C++iOS: Objective-C, C++Developed interactive and editable 2D annotations (images, text) that could be attached to 3D models.Implemented a compression library written in C/C++ to decrease storage requirement on AWS S3 by 66%.Implemented shaders to apply textures onto 3D models using C++ and OpenGL.Worked on Pose estimation algorithm to place 3D models relative to detected QR Codes.Built document sharing feature allowing other users to view or edit the same documents.		
Full Stack Software Developer	PERFORM Centre	May 2019 – September 2019
<ul style="list-style-type: none">Developed an open-source web platform to analyze MRS data from MRI machines for Alzheimer's research. Written in PHP using Laravel along with Vue.js and MATLAB.Developing front-end and back-end of platform for analysis and quantization of metabolite concentrations.The website will replace an equivalent existing software priced at \$15,000 per license.		
Data Science, Intern	Pratt and Whitney Canada	Fall 2016
<ul style="list-style-type: none">Automated the creation of forecasting charts, used in weekly meetings, to depict inefficiencies in the workforce.Built an application to compare the company workforce to predicted upcoming workload for several global plants. The application was used to justify hiring requests at a company offsite.Built a slotting app, where users could keep track of engines up for repair.		

PROJECTS

Gym Pass App (*Android, Java, C++, IoT*)

- A gym membership android app accompanied with an IOT door with electromagnetic locks.
- Includes QR code pass, scanner for admins, crowdedness tracking and notifications.

Yelp Recommender System (*Python, Spark, AWS*)

- A restaurant recommendation engine hosted on AWS, using the Yelp dataset.
- Uses an alternating least squares algorithm to predict ratings for restaurants given a user's taste.

Choices (*Android, Java, Google API*)

- An android app that helps users select a restaurant, filter categories and swipe to like or dislike.
- Uses Google Map and Places API to locate nearby establishments and retrieves their details.

EDUCATION

Concordia University, Montreal, QC

Bachelor of Engineering – Computer Engineering (2015- 2019)

SKILLS

C++, Python, React, Node, Android, IOS, OpenGL, Java, Flutter, C, HTML, CSS, JavaScript, Web Assembly