Michael **Lane**

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Work Experience

MyVR
Portland, OR

Sr. Software Engineer
Jun 2019 - PRESENT

- Use Python, Django, MySQL, Redis, and Vagrant to build backend services for MyVR
- Working through the process of upgrading the tech stack to Ubuntu 18.04, Python 3.7.4, and Django 2.2 from legacy versions
- Upgrading our services to make use of newer JSON APIs instead of outdated XML APIs to better serve MyVR clients
- Designing and building an end-to-end machine learning service using Kubernetes, Docker, and Django for the backend and using ReactJS served as a server side rendered single page app using NextJS deployed to AWS Lambda

Perch Security
Remote

Software Engineer
Sept. 2018 - May 2019

- Use Python, Django, Postgres, Redis, and Docker to build and extend the Perch Security web service
- Created a method of allowing videos stored on S3 to be watched on company pages but not downloaded by instituting a clever dual CloudFront distribution with the appropriate CORS settings
- Architecting a data lake and machine learning analysis platform using ELK stack for petabytes of security indicator data
- Use Javascript to create custom modifications to Kibana that is tailored to the needs of security professionals who use Perch

Uncorked Studios
Portland, OR

Sr. Software Engineer (Short Term Contract)
May 2018 - Aug. 2018

- Used Python, Django, MySQL, and GraphQL to rebuild a web service from the ground up to allow the client to scale by 10X
- Built serverless ETL user clickstream pipeline in Django using AWS Kinesis, Firehose, Glue, Lambda, Athena, and S3 to capture rich user activity data for future Business Analytics

Nextas America
Washougal, WA

Software Engineer
Jan. 2018 - Jun. 2018

- Used Python, Keras, GPU-accelerated Tensorflow, and C++ to R&D deep learning approaches that replace legacy computer vision tasks with algorithms that are faster, more robust, and far more accurate
- Used Python and Keras to build a proof-of-concept deep neural network based on current research to generate a depth map of sub-millimeter scal objects from a pair of stereo images

Portland State University
Portland, OR

Graduate Teaching Assistant
Sept. 2016 - Jun. 2017

- Instructed students on machine learning topics such as neural networks, Bayesian networks, reinforcement learning, support vector machines, ensemble learning, unsupervised learning, and classifier evaluation
- Provided instructions and guidance to students implementing a term-long project to build a user-level threading library using C and Assembly

CDK Global
Portland, OR

Software Engineer Intern
Jun. 2016 - Aug. 2016

- Developed REST API service using Python, Flask, and Cassandra that supports 40,000 phones making hundreds of thousands of simultaneous connections
- Built system using Machine Learning to allow 3 Raspberry Pi receivers to track the locations of 6 BLE beacons to an accuracy of within 6 meters

Acquia
Portland, OR

Software Engineer Intern
Jun. 2015 - Jun. 2016

- Fixed bugs and improved functionality of a Remote Administration script using PHP, Bash, and Drupal Shell (Drush)
- Created an automated task scheduler using PHP, SQLite, and Drush that reduced time required for manual tasks by 80% and reduced the hands-on time spent running a weekly mass update task from 3 hours to 5 minutes

SmugMug
Remote

UI/UX Designer and Developer
Apr. 2007 - Apr. 2009

- Customized SmugMug sites using HTML and CSS for important customers such Marc Meunch and partners such as Philips and Nintendo
- Programmed help pages using PHP, HTML and CSS to document and explain site updates for end users

US Air Force

Ft. Lewis, WA

AIR MOBILITY LIAISON OFFICER

Nov. 2003 - Jun. 2006

- Worked with US Transportation Command to coordinate major US Air Force airlift operations in support of US Army operations for peacetime and wartime missions
- Planned and led wartime replacement operations of one 3,000+-soldier brigade with another in Mosul, Iraq
- Developed a plan in Iraq to establish flight operations at a remote air base resulting in a reduced number of deadly convoys

US Air Force

McConnell AFB, KS

EVALUATOR NAVIGATOR

Nov. 2000 - Oct. 2003

- Planned and executed high priority air-to-air refueling missions worldwide
- Instructed and evaluated KC-135 navigators to ensure they could complete missions safely and effectively
- Conducted nearly 100 air refueling missions over Afghanistan between October 2001 to March 2003
- Executed over 100 air refueling missions over Iraq between March 2003 and May 2003

Education

Portland State University

Portland, OR

M.S. COMPUTER SCIENCE

Jun. 2014 - Jun. 2017

- Emphasis in Artificial Intelligence and Machine Learning

University of Phoenix

Online

M.S. COMPUTER INFORMATION SYSTEMS

Oct. 2002 - Apr. 2005

Illinois Institute of Technology

Chicago, IL

B.S. MATHEMATICS

Aug. 1994 - May 1998

Extracurricular Activity

Sisters of the Road

Portland, OR

VOLUNTEER BACKEND DEVELOPER

Aug. 2018 - PRESENT

- Used Django and SQLite to implement backend REST API for custom POS application.
- https://github.com/codeforgoodconf/sisters-of-the-road-admin

Operation Code

Portland, OR

VOLUNTEER DEVELOPER, CHAPTER ORGANIZER, AND MENTOR

Jan. 2018 - PRESENT

- Added features and reviewed PRs for OC Flask app
- Mentored veterans about how to utilize benefits and make their way into the tech industry
- Worked with tech companies in the Portland area to organize meetups for the tech community

Librar.io

Portland, OR

ARCHITECT

Jan. 2019 - PRESENT

- Using AWS Serverless architecture to build a personal book lending library application

Scorecerer

Portland, OR

ARCHITECT

Feb. 2019 - PRESENT

- Using AWS Alexa Skills Kit, AWS Lambda, and DynamoDB to build Alexa Skill to assist with playing board games