

# Zane Dufour

## EMAIL

zane@znd4.me

## MOBILE

+1 (310) 600-8638

I am a software engineer with 5 years of experience in Software Development and Machine Learning. I'm a huge fan and advocate of python, but I love learning new frameworks and languages (currently golang and lua). As a senior engineer, I'm equally comfortable leading high-level architecture discussions, pairing with junior devs, and debugging problematic incidents. If you like reading  $\LaTeX$ , feel free to check out the [source for this resume](#).

## EXPERIENCE

### Aspiration Inc

Senior Software Engineer -  
Backend  
Remote  
January 2022 - Present

Developed shared libraries and consumer+business-facing backend services. This included working with go, kubernetes, terraform, and multiple AWS services. Implemented a circleci orb for installing and running pre-commit hooks to enforce code quality standards. Added end-to-end tests to our serverless functions, thereby ending a series of incidents where broken lambda configurations made it through our CI to deployment. Improved application observability; integrated Datadog distributed tracing & logging. On multiple occasions, used snowflake queries to determine the cause and impact of production incidents.

### Ford Motor Company

Software Lead  
Dearborn, MI  
February 2020 - January 2022

As the technical lead of the model-training-as-a-service product team within Ford's Mach1ML platform organization, I drove adoption of modern python development tools (poetry/pipenv, black, pre-commit, tox, etc.). Championed the replacement of flask with fastapi for REST API development by adding a fastapi wrapper to the team's project bootstrapping tool. Significantly sped up the process for the review & approval of pypi packages. Worked with other tech leads to plan cross-team integrations. Led the early development and design of the platform's python SDK. Worked hands-on with internal customers to onboard production Machine Learning use-cases. Mentored a large team of ( 10) junior developers & data scientists, with an eye towards documenting the solutions to recurring issues.

### Ford Motor Company

Machine Learning Engineer  
Dearborn, MI  
November 2017 - February 2020

Developed likelihood-to-purchase models for tens of millions of consumers. Helped the team adopt Github for version control. Created and distributed a python package to streamline the process of instantiating a pyspark driver on Ford's High Performance Computing cluster. Drove adoption of test-driven-development and static code analysis for our python libraries and flask services.

### Disney Imagineering

Software Engineering Intern  
Glendale, CA  
June-September 2017

While working in the Disney Imagineering Media and Art Pipeline group, I developed software used for [projection mapping](#) in Disney's parks and resorts. I built a continuous integration system for multiple interdependent applications which were used for different parts of the projection mapping pipeline.

### Intel

Software Engineering Intern  
Santa Clara, CA  
February-August 2016

During this six month internship at Intel, I worked on a desktop application for technicians to work with manufacturing robots. While on the team, I added an exception-handler and a sqlite-based logging system for tracking test metadata. This was the first time I worked in a large code base and learned to write maintainable code.

### UC Berkeley

Research Assistant  
Computational Geometry  
Summer 2015 - Fall 2016

While working as an undergraduate research assistant, I worked on a spectral geometry morpher in C++ and a Houdini tool for generating parameterized geometry.

## EDUCATION

UC Berkeley,  
May 2017

Double Bachelor's – Applied Math and Physics  
GPA 3.4

Relevant Courses

Intro to Computer Science, Machine Learning, Spectral Methods in Computational Fluid Dynamics (Graduate), Upper-Division Linear Algebra, Numerical Methods