

## NIKHIL DAS

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### EDUCATION

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#### UC Davis

Geographic Information Systems (ArcGIS) Certificate

Issued 2021

#### Johns Hopkins

Data Science in R Certificate

Issued 2021

#### University of Michigan

Python Specialization Certificate (Data Structures, Web Access, Databases)

Issued 2020

#### University of Washington

Bachelor of Science in Mechanical Engineering

Issued 2011

### ACADEMIC AND FREELANCE EXPERIENCE

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#### *Freelance GIS & Data Analyst*

2020 - Present

- Scripted a tool in Python to track shark fishing activity across California with a novel webscraper and scanned over 40,000 social media records. Distilled findings into an R dashboard to advance the advocacy goals of a shark conservation non-profit
- Developed maps in ArcGIS Desktop 10.7 using Landsat 8 satellite imagery to assess wildfire damage in Point Reyes, California
- Evaluated spatial & temporal changes in bull kelp distribution along the Northern California coast. Developed a map, and published findings & methods in the popular Toward Data Science blog [here](#)
- Developed an interactive map using Python & Google Maps API by scraping geospatial data for the world's UNESCO heritage sites. Used R Leaflet & OpenStreetMap for final map display
- Developed personal portfolio website using Markdown, Jekyll and Github to host projects to date

### ADDITIONAL PROFESSIONAL EXPERIENCE

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#### Moog CSA

Mountain View, CA

*Engineering Analyst, Space and Defense Group*

2019 – 2020

- Developed and delivered mathematical models of satellite components to predict launch performance for contracts nearing \$1M for government, private and research organizations
- Presented findings and formalized research to customers on schedule and within budget, while coordinating with vendors for on-time final product fabrication and delivery
- Drafted test procedures and reports, evaluating and correlating data to analytical models
- Managed and distilled large datasets from both simulations and lab tests into meaningful results for preliminary trade studies, build-to-print contracts, internal R&D, and product delivery

#### DeepFlight

Point Richmond, CA

*Mechanical Engineer, Dragon and Super Falcon 3S submarines*

2018 – 2018

- Analyzed submarine designs for strength using computer-aided-design (CAD) software
- Delivered detailed engineering drawings of submarine tooling for vendor fabrication
- Developed functional test requirements and test procedures for submarine components

#### Fresenius Medical Care North America

Concord, CA

*R&D Engineer, Peritoneal Dialysis – on contract*

2018 – 2018

- Investigated, prototyped and developed designs for future kidney dialysis machines
- Developed functional test procedures for offsite transportation testing of dialysis machines
- Participated with marketing, regulatory, and testing teams to drive customer requirements

## **The Boeing Company**

**Everett, WA**

*Engineering Analyst II & I, 777X & 747 Programs*

**2011 – 2017**

- Exceeded weight savings goals by developing an engine mount design that resulted in 40% weight decrease and substantial fuel savings for airlines. Completed deliverables on budget two weeks ahead of schedule on team nominated for company-wide engineering award
- Developed novel repair for 747 that resulted in over \$200,000 in maintenance cost savings
- Liaised with airline customers, technical experts and company leadership to investigate safety and economic issues while presenting meaningful data analysis findings
- Managed and investigated fleet history data to determine root cause of airplane structural damage, while developing technical and maintenance documentation for FAA approval

## **SKILLS**

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### **Programming Languages**

- Python
- R
- Matlab (basic)
- HTML (basic)

### **Software**

- ArcGIS 10.7 Desktop (ArcCatalog & ArcMap) & ArcGIS Online
- GitHub
- IDE: Rstudio & working knowledge of PyCharm
- Markdown: R-markdown & working knowledge of Markdown
- CAD: SolidWorks and Autodesk
- Microsoft Office (Advanced Excel)

### **Additional skills**

- Data visualization: ArcGIS and R (tidyverse, dplyr, ggplot2, leaflet, flexdashboard, plotly)
- Language: Spanish (conversational)