



# CODY GRIFFITH

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As an applied mathematician, I have had exposure to industrial algorithm, UI and UX design, data science towards social impact, and contributed to the modelling dynamics of oceanic currents. My goal is to continue to diversify my knowledge and make an impact on the world around us.

## EXPERIENCE

DEC 2021 TO PRESENT

**SOFTWARE DEVELOPMENT ENGINEER**, ONE IDENTITY, GMBH

- Support web migration to new Angular framework while extending middle-ware C# Rest API
- Communicate with stakeholders to architect accessible UI/UX for visual workflow editing, deploy stand-alone demos in JavaScript, and integrate into new framework
- Visualize customer data in a responsive and interactive format within the web

DEC. 2018 TO AUG 2021

**RESEARCH SCIENTIST**, 908 DEVICES INC.

- Automated intact protein characterization via deconvolution, relative identification, and quantization with CE-MS data in Python and C++
- Managed the above tool for both internal and external software deployment
- Maintained and added significant features to existing Matlab/embedded software
- Reported sample analyses to customers and worked together with lab technicians and chemists to design and run experiments
- Formed large scale data analyses on manufacturing and unit exit test data

MAY 2018 TO SEPT 2018

**RESEARCH SCIENTIST**, DATA SCIENCE FOR SOCIAL GOOD

- Led development of a data analysis tool to bring together multiple data streams via R and make statistical inference
- Collaborated with stakeholders to ensure requirements were met
- Partnered with Microsoft to gain insight into algorithms and analysis avenues

## EDUCATION

SEPT 2016 TO SEPT 2018

**MSC. APPLIED MATHEMATICS**, UNIVERSITY OF BRITISH COLUMBIA

Thesis: Non-Smooth Dynamics in the Stommel Model for Thermohaline Circulation

GPA: 3.97 of 4.0

Relevant Coursework:

- Probability I, II & III
- Asymptotic Analysis
- Dynamic Systems
- Machine Learning

AUG 2012 TO MAY 2016

**BSC. APPLIED MATHEMATICS**, METROPOLITAN STATE UNIVERSITY OF DENVER

GPA: 3.67 of 4.0, Provost's Honor Roll -Spring 2015

Relevant Coursework:

- Probability Theory
- Numerical Analysis I & II
- Stochastic Processes
- Statistical Theory
- Chaos and Nonlinear Dynamics
- Statistical Methods

## PUBLICATIONS

- Budd, C., **Griffith, C.**, & Kuske, R. (2021). *Dynamic tipping in the non-smooth Stommel-box model, with oscillatory forcing*. Physica D: Nonlinear Phenomena. Available at: <https://www.sciencedirect.com/science/article/abs/pii/S0167278921001068>
- **Griffith, C.**, Mathur, V., Lin, C. and Zhu, K. (2019). *Understanding Childhood Vulnerability in The City of Surrey*. [online] arXiv.org. Available at: <https://arxiv.org/abs/1903.09639>

## ACADEMICS

### Conference Talks

|   |                        |
|---|------------------------|
| Exploration of Iterative Matrix Transformations | <b>JMM 2016</b>        |
| Probability Model of a Taxi Stand               | <b>MSU Denver 2015</b> |
| Dual Capacity Stochastic Queue                  | <b>MAA 2015</b>        |

### Collaborations

|   |                               |
|---|-------------------------------|
| Failure Analysis of Mining Dump Trucks    | <b>SSR Mining 2017</b>        |
| Spatial & Temporal Analysis of Bear Creek | <b>Groundwork Denver 2016</b> |

## SKILLS

- Deep understanding of **Algorithm Design**
- 10+ years of **Mathematical Analysis**
- Excellent **Collaborative & Interpersonal Skills**
- Extensive use of **Python, Matlab, and JavaScript**
- Intermediate use of **R, C++, and C#**
- Well experienced in **CI/CD frameworks & Azure Devops**

## REFERENCES

**Mr. Robert Green**  
[bgreen@908devices.com](mailto:bgreen@908devices.com)  
Principal Scientist  
Direct boss at 908 Devices

**Dr. Kevin Lin**  
[kevin.lin@ubcs.ca](mailto:kevin.lin@ubcs.ca)  
Director of DSSG at UBC  
Supervisor at DSSG

**Dr. Rachel Kuske**  
[Rachel@math.gatech.edu](mailto:Rachel@math.gatech.edu)  
Chair of Mathematics  
Master's thesis supervisor