

Jonathan Goldfarb

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Experience

Dental EMR

Bend, OR (Remote)

Engineering Manager

October 2020–January 2021

- Design and develop features across a legacy RESTful Python (Django) backend and a JavaScript (AngularJS) application. Generate data model documentation, and integrate external APIs with frontend code. Assess and review Python 3 code migration.
- Communicate across technical and non-technical team members and stakeholders to develop requirements for product iterations and technology strategies for data and application security. Develop user stories on Atlassian Jira.

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Columbus, OH (Remote)

Technical Lead

September 2019–December 2020

- Design, develop, and implement microservice-based application backend: Python 3, Node.js/JavaScript, and SQL technology stack deployed to AWS Lambda. Integrate data sources, internal web services, and vendor APIs (Dwolla, Plaid, Auth0). Develop data-intensive JavaScript (Svelte) front-end applications.
- Architect containerized continuous integration and deployment pipelines using Docker and Gitlab. Integrate cloud solution for deployment of application to production on AWS RDS and EC2 using Terraform and the AWS CLI.
- Provide technical review and input on architecture & product roadmaps. Train development team members on best practices, collaborate on sub-tasking available resources and risk analysis. Create integration-level cutover and test plans, and develop unit tests for core functionality. Generate API collateral and detailed user stories.

Florida Institute of Technology

Melbourne, FL

Assistant Professor and Director of Mathematics Advancement Center

August 2016–

- Technical lead, large-scale, high performance software package for optimal control in quantum mechanics and biomedical engineering applications.
- Developed open-source computational toolbox for optimal staff scheduling in COIN/OR, integrated with C and Julia code. Implemented ETL pipelines and automations for stakeholder report generation in Python.
- Create instructional material on data-driven analysis and computational approaches to problems in applied and physical sciences, statistical methods, machine learning, and simulation. Mentor students in Python language fundamentals and applications.

Harris Corporation

Melbourne, FL

Software Engineer

May 2016–December 2016

- Develop expertise in distributed and parallel algorithms for large-scale data processing (Scala, Apache Spark, Hadoop and HDFS, and C++). Discover requirements and opportunities, document technical approaches and patterns for future development needs.
- Use Gitlab for continuous integration testing and collaboration. Manage HPC cluster using Zookeeper.
- Manage backlog and collaborate on issues using Jira and Kanban. Train in Agile/Scrum methodologies, participate in standups, sprint retrospectives, demonstrations

Florida Institute of Technology

Melbourne, FL

Graduate Student Assistant

August 2009–May 2012, August 2015–May 2016

- Design, manage, and test API integrations for Sage (Python) and WebWork (Perl) server applications for use in production for educational and research capacities.
- Developed MATLAB, R, and Julia models for applications in statistics and physics and delivered training on computational tools.
- Instructional experience in partial differential equations, applied statistical analysis, and mathematical modeling
- Respond to critical need for application management web service and administrative tools implemented in PHP, SQL, with a data processing and reporting front-end written in Python and a web-based GUI written in Javascript, for NSF-supported Research Experience for Undergraduates (REU).

Education

Florida Institute of Technology

PhD, Applied Mathematics

Dissertation Topic: *On the Optimal Control of Free Boundary Problems for Second Order Parabolic Equations*

Melbourne, FL

Spring 2016

Florida Institute of Technology

BS, Environmental Sciences

2009

Skills

Languages: C, C++, Java, JavaScript, Julia, \LaTeX , Perl, Python, SQL, Scala

Platforms & Tools:

- Linux, Windows, AWS, Google Cloud Platform, Heroku
- Apache Hadoop Ecosystem (HDFS, Parquet, Spark)
- Git
- MongoDB, RDBMS (MySQL, PostgreSQL)
- Machine Learning Frameworks (Tensorflow, Keras)
- Docker and Docker Compose, Ansible