

Tom Krug

Software Engineer

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www.tomkrug.io

github.com/thomaskrug96

Relevant Experience

Software Development Engineer @ Analog Devices

May 2020 - December 2021 // Wilmington, MA

- ▶ Lead software engineer for highest revenue-generating product in ADIs Digital Healthcare business unit. Responsible for sustaining and new development activities including design and debug of production boards, developing test code in VBA and Python, maintaining code repositories with git and tortoiseSVN, and tracking yields across all production facilities using JMP
- ▶ Migrated department databases from on-premise servers to virtual private cloud provider. Designed database architecture from initial concept to production deployment. Significantly reduced engineering costs by automating data workflows and reports
- ▶ Tracked project documentation, requirements, tickets and bugs in Confluence and JIRA
- ▶ Developed data processing algorithms and test cases for new products utilizing Jupyter Notebooks

Software Engineer Intern @ Lockheed Martin

May - August 2019 // Ocala, FL

- ▶ Designed and implemented a pneumatic feedback system in C++ to optimize nitrogen gas expenditure for relative humidity chambers across the F-35 production line
- ▶ Designed a proof-of-concept IoT mesh network using ZigBee to monitor gas consumption across the facility to provide accurate cost savings of implemented design

Software Test Engineer Co-op @ Itron

May 2018 - May 2019 // Waseca, MN

- ▶ Integrated automated test equipment into new product lines by developing LabVIEW program logic, user-interfaces for operators, and SQL database connections to track yields
- ▶ Optimized test coverage of new product lines by designing pass/fail criteria at each step in manufacturing process and developing test cases for program logic

Research Assistant @ University of Minnesota

Jan - June 2017 // Minneapolis, MN

- ▶ Utilized Hodgkin-Huxley model to statistically characterize the response of mouse hippocampal neural network exposed to various concentrations of ion-blocking reagents in MATLAB
- ▶ Performed computationally-intensive workloads across large datasets via server-side batch script requests using the University of Minnesota's Supercomputing Institute network

Projects

DJ Website @ www.djpleb.com

Feb 2022 - Present

- ▶ A creative site for my DJ hobby. Includes an admin panel to edit upcoming events and new music. Frontend and backend built with CI/CD using Django, Bootstrap, and Heroku. AWS used for asset management.

Portfolio Website @ www.tomkrug.io

Jan 2022 - April 2022

- ▶ A single-page app built using React and Gatsby to showcase my background, work experiences, and personal projects

Car Dealer Reviews Website @ [www.github.com/thomaskrug96/ibm-cloud-developer-capstone-project](https://github.com/thomaskrug96/ibm-cloud-developer-capstone-project)

March - April 2022

- ▶ IBM Full Stack Cloud Developer Capstone Project. Deployed a cloud-native website connected to IBM Cloudant database and microservices

Skills

Programming Languages

Python, JavaScript, HTML, CSS/Sass, JMP, VBA, LabVIEW, MATLAB, C++

Libraries & Frameworks

Django, React, Gatsby, Node.js, Jekyll, Matplotlib

Tools & Platforms

Git, AWS, Kubernetes, Docker, Netlify, Heroku, Confluence, JIRA, JAMA

Design

Photoshop, Illustrator, Premiere Pro, After Effects

Hardware

Oscilloscopes, Function Generators, Digital Multimeters, Signal analyzers, Spectrum Analyzers

Education

Minnesota State University

2016 - 2019 // Mankato, MN

Bachelor of Science in Electrical Engineering Minor in Mathematics and Biology
Cum Laude and Self-funded

Certificates

IBM Full Stack Cloud Developer Certificate

Jan - April 2022 // Online

Interests

CrossFit, DJing, Traveling, Running, Reading