

Jacob Williams

Delivering Fullstack Solutions

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EXPERIENCE

Shutterstock, Ottawa— Sr. Software Engineer L3

AUG 2022 - Present

Used Typescript, NextJs, to create data-driven fullstack solutions to the Shutterstock web platform. Developed the Experimentation platform to enable A/B testing and beyond. Made React & NextJS SDKs for consistency across orgs & repos. Improved experimentation velocity by deploying slackbots & cli tools. Designed & implemented User Saving flows which boosted user engagement by 300%.

Slync, Ottawa— Software Developer L2

NOV 2021 - AUG 2022

Combined results from Redis, Postgres, & MongoDB for accurate and 200% faster load times. Created a Kibana fork for customized dashboard experience. Added RBAC to Elastic for improved security. Replaced Pentaho with Logstash which reduced costs for ETL tools by 80% and increased development velocity.

Carlson Software, Ottawa— Sr. Software Developer

JAN 2019 - NOV 2021

Used Rust, C++, Typescript, and React to deliver optimized solutions for resource estimation, mine planning, and digital twin solutions. Developed and Deployed Machine Vision Algorithms for IOT bulk inventory measurement. Delivered a desktop blasting package with cloud integrations.

Heritage Crystal Clean, Chicago— Jr. Project Engineer

SEP 2015 - JUN 2017

Managed a portfolio of projects for the Waste Oil Recycling Facility. Developed python dashboards using pandas and matplotlib for visualizing processing plant production data.

EDUCATION & PUBLICATIONS

McGill University, Montreal— Masters Mining Engineering — JUL 2017 to DEC 2018

McGill University, Montreal— Bach. Mining Engineering — JUL 2010 to DEC 2015

Exploring Deep Learning for Dig-Limit Optimization in Open-Pit Mines — *Lead-Author, Journal of Natural Resources Research*, 30, 2021

Optimizing Ore-Waste Dig-Limits as Part of Operational Mine Planning Through Genetic Algorithms — *Co-Author, Journal of Natural Resources Research*, 25, 2016

SKILLS

Languages

TS, JS, Rust, Python
C/C++, Go, CSS, HTML

Frontend

React, NextJS, Redux,
Electron, Mui,
D3, i8n, Figma

Backend

Node, Express, NestJS
GraphQL, REST

Database

PostgreSQL,
MongoDB, Elastic,

Testing

Jest, Cypress,
Storybook,
Google Test,
Playwright

Dev Ops

Terraform
Gitlab Pipelines,
Github Actions,
Docker, Kubernetes

Cloud

GCP, Azure, Oracle
AWS-CCP
KCNA Certified

Build Tools

TurboRepo, CMake,
Nx, Yarn Workspaces

ML

Tensorflow, Keras,
Pytorch

OS

Windows, Mac, Linux

Citizenship

US, Canada