NICK DOIRON

EXPERIENCE

SENIOR SOFTWARE ENGINEER, McKinsey & Company — Feb 2018 - Present
Lead developer on financial data analysis and visualization project (React / NodeJS)
Geodata and analysis for machine learning in real estate and due diligence (Python / PostGIS)
Presentations at DEFCON, PyCon Zimbabwe, IAEA Safeguards

INDEPENDENT CONTRACTOR, GeoReactor — Fall 2016 - Fall 2017
Principal Software Engineering contract - API development for Silicon Valley Bank
Contract creating tools to curate and import data into OpenStreetMap - for ESRI
Rendering Arabic, Divehi, and other languages in OpenStreetMap iD editor
Presentations at JSConf Iceland, UNCS-Macao, Code for HK, Code for Japan, LibrePlanet

SENIOR APPS DEVELOPER, Asia Foundation — 2015 - 2016
Designed and built NodeJS server to provide candidate information for Myanmar's 2015 election
Coordinated Mongolia map-athon, including drone imagery, HOT task manager, tracking teams' progress

WEB DEVELOPER, Museum of Modern Art, New York — 2014 - 2015
Ruby on Rails and front-end for MoMA's redesigned website, mobile app backend, Raspberry Pi displays
Pair programming, test-driven development

SOFTWARE ENGINEER, Civis Analytics, Chicago — 2013 - 2014
Ruby on Rails for a data science platform, including surveys, map, charts, syntax highlighting

GIS FELLOW, City of Boston GIS Department — Summer 2013
Deployed civic apps for bike lanes, voting, public safety, and locally-based startups

WEB DEVELOPER, Datamade, Chicago — Spring 2013
Collaborated with civic activists to visualize public health, new transit plans, environmental sensor data

CODE FOR AMERICA FELLOW, San Francisco — 2012
Interviewed government officials and community organizers to conduct need assessment
Housing, disaster response, accessible Q&A, and transit apps for local governments
Opened years of data on neighborhood level for community groups to show their impact

TRAVELING TEACHER / DEVELOPER, One Laptop per Child — 2010 - 2013
Developed new math, science, geography, and language-learning activities in Python
Traveled to develop content for schools in Uganda, Uruguay, Haiti, Nepal, and the Marshall Islands

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OPEN SOURCE PROJECTS

Quail - program quantum computers in the browser - written in TypeScript - cross-platform, compiles assembly and posts code to IBM, Rigetti, and Microsoft's quantum computing APIs

MetaMask i18n - added multilingual support to a popular cryptocurrency wallet / Chrome app - assisted non-technical translators to add Haitian Creole and Slovenian - now in 22+ languages.

Encrypted-GeoFence - homomorphic encryption API in Python and JavaScript - allows a client to check if they are in the server's target area, without client or server sharing unencrypted info

Fortran.IO - web framework in Fortran, received front page traffic from Hacker News

Noonniep - livestreaming video of an Arduino, allowed visitors to reprogram it using a block-programming language. Data streaming via web sockets (socket.io)

SKILLS

In web development

Full-stack JavaScript including NodeJS (Express/Koa), React, TypeScript

Responsive CSS and pre-processors (SASS/LESS)

Ruby on Rails, Python; less frequently Go or PHP

Deployment on AWS EC2, Lambda (with Serverless), DigitalOcean, Heroku

TLS certs with LetsEncrypt; key-pinning; post-quantum encryption; homomorphic encryption

Git and GitHub

In databases

PostgreSQL / PostGIS, MySQL, SQLite

NoSQL: MongoDB, Neo4j (graph database)

In languages

Conversational Spanish and Japanese

Basic Arabic (UAE / Gulf dialect), advanced Arabic i18n (RTL layouts, text-shaping)

i18n/l10n with specializations Burmese, CJK, Divehi, and Devanagari scripts

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