

MATTHEW KUZYK

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PROFILE

Languages/Frameworks: [Node.js](#), [Python](#), [SQL](#), [JavaScript](#), [C#](#), [.NET](#), [Ruby](#), [Rails](#), [Scala](#), [Java](#), [Angular](#)
Tools: [AWS \(Lambda, CloudFormation\)](#), [Serverless](#), [Git](#), [UNIX](#), [Bash](#), [Docker](#), [Elasticsearch](#), [Gulp/Grunt](#)

EXPERIENCE

Software Engineer - Thomson Reuters

Sept '18 - Present

Structured [RFC](#) process for creating tech/[API](#) standards company-wide (1000+ devs). Based on IETF model
Evaluated and chose [OIDC authentication](#) platform for use across 10 mil+ users, hundreds of law and tax firms
Built API dashboard with [Serverless + Lambda](#) to give overview of all APIs across Thomson Reuters
Prototyped fine-grained, policy based [authorization](#) security systems

Associate Software Developer - Thomson Reuters

Sept '17 - Sept '18

Delivered [Single Sign On](#) auth capability for major clients, using [.NET](#), [SAML](#), [OpenAM](#), and [Angular](#)
Created [Agile](#) process from scratch, implemented standards for the team around [Git](#), versioning, and release
Led early design phase of SSO tool, defined user requirements
Mentored both new grads and interns on [Git](#), [JavaScript](#), and development practices

Platform Engineering Intern - Harry's

May - Aug '16

Earned the company ~\$240k per year by automating product failure emails using [Scala](#)
Fixed Facebook authentication issues and vulnerabilities with the [OAuth](#) implementation on the [Rails](#) app
Updated discount code schema and model, increasing marketing acquisitions through podcasts

Security Engineering Intern - Yelp

Sept - Dec '15

Enhanced ElastAlert, an open source [Elasticsearch](#) monitoring and alerting tool, increasing alert flexibility
Increased signal-to-noise on security alerts by creating self-service alerting app using [Python](#), [Flask](#), and [React](#)
Automated verification and configuration of whitelisted IPs for Yelp's internal proxy

Full Stack Engineering Intern - Taplytics

Jan - April '15

Automated entire build, test, deploy, and load balancing process on [AWS](#) using [Gulp](#)
Built push notifications as a service platform for clients with millions of users using [Amazon SNS](#) and [SQS](#)
Planned and developed a secure public [Node.js API](#) independently, with full test coverage and documentation

Web Developer Intern - 500px

May - Aug '14

Sped up page loads through API restructuring, removing blocking requests
Regularly proposed and implemented architecture and design changes, such as introduction of [Marionette.js](#)

Software Developer Intern - Boltmade

Sept - Dec '13

Independently delivered full stack features by working directly with clients on [Ruby on Rails](#) projects
Implemented in-app image upload to [Amazon S3](#)

Software Developer Intern - PointClickCare

Sept '12 - May '13

Built MVC software through development in Spring in conjunction with JSP
Contributed to enterprise SQL backend with sensitive performance constraints

Conversational Systems Developer Intern - Nuance

Jan - April '12

Built software for finding user intent through speech with agent based dialogue programming in [Java](#)
Parsed large sets of speech keywords using Python, used for decision making
Authored application critical code that interacted with a [Natural Language Processing](#) system

EDUCATION

Systems Design Engineering - BAsC (Hons), University of Waterloo, 2017

Relevant courses: Data Structures & Algos, Image Processing, Computer Structures and Real-Time Systems, Machine Intelligence, Optimization, Systems Models, Control Systems, Human Factors in Design

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PROJECTS

Co-founder of Hack The North

May '14 - Sept '15

Cofounded Canada's largest international hackathon with over 1200 attendees
Purchased and managed more than \$5000 of hardware for hackers to use
Constructed registration and application mailer system for over 3000 applicants
Reached out for judging opportunities to companies such as Y Combinator

Product Recall Detection - 4th Year Project, [Published Paper \(IEA Conference\)](#)

Sept '16 - Jun '18

Built a [machine learning classifier](#) to identify product safety issues on [Amazon](#), for use by product safety orgs
Outperformed [state of the art](#), published and presented findings at two conferences with audience >200
Developed a modular feature extraction pipeline, used [NLP](#) techniques such as stemming and stopwords
Implemented range of [ML](#) algorithms, including: [SVM](#), [logistic regression](#), [random forest](#), [naïve Bayes](#), [KNN](#)
Interviewed real users, strictly followed [Agile](#) design process, prototyped many iterations

Cryptocurrency Tipper - Pen Apps 2014

Feb 14'

Created a tipper that allowed sending of [Dogecoin](#) through Facebook
Awarded sponsor prize for best use of hosting platform (Digital Ocean)

Video Thumbnail Summary w/ Linear SVD

April '16

Automatically generated the best possible thumbnails for any video using a histogram matrix and matrix SVD
Compared visual information between frames through eigenvalue decomposition using [OpenCV](#) in [Python](#)

CTF Security Competitions

April '15, Nov '17

Placed 17th out of 228 teams in a UIUC hosted CTF competition
Worked on problems such as exploitation of heap overflow, and breaking into a fake bank website
Simulated break-in to government systems, used watering hole and heap overflow exploits in [Metasploit](#)

Automated Storage App - Cal Hacks 2.0

April '15, Nov '17

Built an [Android](#) app with a [Node+Express](#) backend, would call a Postmates to put your stuff into storage
Won [Best Overall Use of Microsoft](#) for using [Azure](#)