

Elena Zhan

elenzhandeva.github.io
elenzhandeva@gmail.com
ca.linkedin.com/in/elenazhan
github.com/elenzhandeva

EDUCATION

UNIVERSITY OF WATERLOO

HONOURS COMPUTER SCIENCE
COOP 4A

Sept. 2015 - May 2020

Cumulative GPA: 84.2

Dean's Honour List (May 2017)

SKILLS

Python / PySpark • C / C++ • Go
Java (Eclipse) • Racket (Scheme)
AWS: EC2, ECR, ECS, EMR,
CloudWatch, CloudFormations,
DynamoDB, S3
Ruby on Rails • Watir
RSpec • Factory Girl
Linux (Bash) • Git • Jira
Docker • Grunt/Gulp • Postman
Vagrant • ChefDK • K8s

PROJECTS

CHAMBER CRAWLER 3000 | 2016

- Built a text-based version of Rogue with two partners in **C++**
- Implemented spawning of characters and item functionality using object oriented design patterns and smart pointers for memory management

EAT SOCIAL | 2016 @ HACK THE NORTH

- Built a web app with two teammates that pairs users in proximity and recommends a restaurant at optimal distance from their locations
- Used **AngularJS**, **Firebase** and **Yelp API**

EXTRACURRICULARS

UW ACRO YOGIS

2016-present | Base

WiCS

2015-present | Member

WORK EXPERIENCE

SOFTWARE ENGINEER INTERN | Ag (AMAZON)

Sept - Dec 2018 | Mountain View, CA

- Designed a flexible feature generation pipeline framework, enabling data scientists in Amazon Search to generate new Search relevance ranking features by aggregating behavioral data across custom dimensions, without needing to write code
- Owned the full development of the project end-to-end, from design review to deployment of the first set of generated feature data pushed to production
- Developed framework using **PySpark** on AWS EMR clusters, leveraging **S3**, **DynamoDB**, and **ADP**

INFRASTRUCTURE ENGINEER INTERN | YAHOO! (OATH)

Jan - Apr 2018 | Sunnyvale, CA

- Set up **CloudFormation** templates to spin up resources (ECR, EC2, ELB, Cloudwatch, etc.) to migrate **Docker** registry and auth services to **AWS** (>100TB of images)
- Added mutual TLS authentication between Docker registry authentication and identification services in **Go**
- Added feature to self-authorize user services for Docker registry authentication
- Provided user support (to all of Yahoo and AOL's developers) during migration of Docker registry from in-house data centers to AWS
- Worked on a nginx proxy using **Ruby**, **ChefDK**, **Vagrant**, and **Kubernetes**

SOFTWARE ENGINEER INTERN | FLIPP

May - Aug 2017 | Toronto, ON

- Added over 40 new merchant website flyer scrapers, significantly improving unique user engagements in Canada and US (eg. increase by 104% in Utah)
- Fixed major scalability issue by regrouping flyer pages sent to a de-duping algorithm into smaller batches to avoid overloading it with one large job
- Improved Ops team efficiency by rebuilding an internal health check dashboard with **Rails** framework, using cached data from multiple tables periodically updated
- Implemented logging of jobs sent between backend microservices to **AWS** Cloudwatch, facilitating tracing and debugging throughout the system
- Wrote unit tests with 100% code coverage (**Rspec**, **Factory Girl**), completed code reviews (**Github**), deployed to production (**Jenkins**), and was in on-call rotations

WEB APP DEVELOPER INTERN | NASCENT DIGITAL

May - Aug 2016 | Toronto, ON

- Implemented design changes to improve UX and fixed existing bugs on Heart and Stroke Foundation's 'Risk Assessment' web app and '<30 Days' mobile app using Visual Studio **.NET (c#, cshtml, less)**, **MS SQL Server**
- Fixed security issues, developed pages, and implemented a referral program for Public Mobile's website using **AngularJS**, **Sass**, **PHP**, **MySQL**. Used various SDKs (Facebook, Twitter, Instagram, G+) for social sharing
- Juggled multiple projects simultaneously, always completing work before/by deadlines despite last minute requirement changes
- Coordinated with the clients, designers, other devs, PMs, and the QA team on each of these projects

MATH TA | UNIVERSITY OF WATERLOO

Sept - Dec 2016 | Waterloo, ON

- Marking assistant for first year calculus