

ZHUOXIANG (SAM) XIE

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EDUCATION

Smith School of Business, Queen's University

Master of Management in Artificial Intelligence

Kingston, Ontario

Sep 2024

McMaster University

B.Eng in Chemical Engineering, Computational Process Control

Hamilton, Ontario

Jun 2019

LANGUAGES AND FRAMEWORKS

Languages: JavaScript/TypeScript, Python, Java, Bash, SQL, HTML/CSS

Frameworks: React.js, Node.js, Django REST API, FastAPI, MaterialUI, TailwindCSS

EXPERIENCE

Founder/Software Engineer

StepsNet

Jul 2023 – Dec 2024

Toronto, Ontario

- Developed a community-focused iOS fitness app, leading architecture design (database design and micro-service logic), and acquiring 15 beta users in 3 months, and pitching to 2 investors who reached out with interest
- Migrated the backend of the mobile application from AWS Elastic Beanstalk to AWS Serverless Application Model to reduce cloud computing costs by nearly 60%
- Automated AWS API Gateway and DynamoDB configuration by re-tooling CloudFormation, establishing a SAM pipeline on GitHub Actions with CI/CD enabled for Lambda in multiple environments
- Implemented an algorithm that tracks users' movement and converts them into score based on their daily schedules through optimizing the asynchronous behaviour of iOS Core Motion and Core Data frameworks

Software Engineer

überflip

Oct 2021 – Dec 2022

Toronto, Ontario

- Constructed the backend architecture and endpoints for Marketing Stream item tile conversion project using Laravel, and created comprehensive API functional tests with Selenium in Java
- Investigated XSS vulnerabilities posed to the UF platform and mitigated its security risks by hashing inline script tags in core template files along with importing other necessary CSPs into HTTP headers
- Re-created reusable Form component using React.js and eliminated outdated legacy view engine code to increase codebase's readability and to reduce build time by 5%

Software Engineer

Avybe

Mar 2021 – Sep 2021

Toronto, Ontario

- Developed and shipped the backend architecture of auction bidding feature for video call with content creators using Django REST framework
- Expanded the platform's user pool by 20% through the integration of AWS Cognito Multi-factor Authentication that allows users to log into the platform seamlessly with their Google or Facebook accounts
- Created the UI for existing users' data migration from RDS to Cognito, ensuring all authentication related logic such as success, failure, and reset are properly handled

PROJECTS

Bias Detector for Short Text | *scikit-learn, pandas, React.js, AWS SageMaker, AWS Lambda*

- Link to Demo:** <https://www.youtube.com/watch?v=0WCvBnMe5P4>
- Supervised fine-tuned the BERT model, achieving an F1 score of 0.85 and an accuracy of 0.84 after implementing comprehensive preprocessing to remove data anomalies, improving model robustness in text classification
- Deployed the fine-tuned BERT PyTorch model on Hugging Face and pushed it to AWS SageMaker to enable its real-time inference capabilities through endpoint invocation

Sorting Visualizer | *React.js, D3.js, Redux*

- Link to Demo:** <https://learnersamuelx.github.io/bigosim/>
- Visualizing the time complexity of different sorting algorithms using frontend frameworks Redux, React.js integrated with D3.js
- Reconfigured sorting algorithms based on React Hook rendering pattern to generate the corresponding automation behaviours