

Zachary O'Brien

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SUMMARY

Senior Developer with 8.5 years of professional experience in Full Stack Development and architecture design, with a deep passion for bleeding edge technology and continuous learning. Currently finishing a Masters Degree in Artificial Intelligence and looking for work in the field.

SKILLS

- **PyTorch, Tensorflow, Scikit-learn, Pandas, Keras, Jupyter Notebooks, AWS Sagemaker**
- **Python, Go, ReactJS, Java (EE), RDS/Postgres, HTML5, CSS3, and NodeJS** development
- Automating deployment of **AWS Services** including **EC2, RDS, and Redshift**
- Implementing **CI/CD** practices using tools such as **Git, Jenkins, and Docker**
- Practicing and teaching **BDD, TDD**, automated unit testing in both Go and Java, and automated functional testing using **Gherkin, Cucumber, and Protractor**
- Coaching development teams on proper **Agile, DevOps, and SAFe** practices
- Migrating legacy applications to new Cloud-based infrastructures

EDUCATION

Masters of Science in Artificial Intelligence - Specialty in Biomedical Engineering
University of North Texas, Denton, TX August 2020 - Present (Summer 2020)

Bachelors of Science in Computer Science - Specialty in Architecture and Algorithms
Southern Methodist University, Dallas, TX August 2009 - May 2013

EXPERIENCE

Engineering Manager & Lead Architect

Katapult | Plano, TX

September 2020 - Present

Senior Architect and Engineering Manager for Katapult's Core development team. Katapult takes subprime loan candidates and processes non-credit related data through Machine Learning algorithms to propose offers for financing.

Highlights

- Proposed, managed, and led to completion of a migration of technologies while maintaining progress of new business features.
- Taught organization and led adoption of development best practices including branching structures, unit/integration/functional testing, scalable/maintainable code practice increasing developer velocity from 35 story points to 49 story points per sprint
- Completed proof of concept and led the development team in implementing a centralized and secure logging structure for both security auditing as well as detailed user tracking for debugging.

Environment: Python, Postgresql, Git, AWS, Angular, Django

Business Systems Engineer

Stackpath | Dallas, TX

February 2020 - September 2020

Senior Developer for Stackpath's Business Systems team. Our team develops and maintains a secure edge computing infrastructure that delivers both infrastructure and content to users globally.

Highlights

- Fully automated syncing of live usage data for over 100,000 active users across 3 different storage systems on our Edge Compute Platform
- Created scripts to audit billing, usage, and invoice data that are able to operate at > 100Gbps
- Overhauled processing of usage data from our dashboard to give our sales team over double the leads, resulting in thousands of additional customers

Environment: Python, Postgresql, Git, AWS, Zuora, Salesforce

Professional Software Engineer & Engineering Manager

Motionloft | Dallas, TX

June 2018 - January 2020

Manager/Lead developer for Motionloft's Cloud Engineering team. Our team developed a full cloud infrastructure for processing over 2,000 IoT devices through Computer Vision Algorithms. This data was used to deliver pedestrian and vehicle counts, behavior, demographics, and movement trends to clients in real-time.

Highlights

- Programmed dashboard to display complex information such as heatmaps of live person/vehicle traffic with less than an 850ms delay.
- Created a dynamically expandable, fully automated, UI/API infrastructure.
- Developed proof of concept processes, such as a custom replacement for AWS's IoT and Kinesis, that resulted in \$12,000/mo cost savings.
- Reduced annual spend in budget for staffing, infrastructure, and R&D by \$300k while also increasing speed of deployment by 50% and decreasing AWS costs by 35%.
- Overhauled our Redshift database, taking average query time from ~6sec to under 1sec.
- Completely replaced the current API layer (designed in a mix of Ruby, Go, and Javascript) with a fully Go API layer with Gin routing. This allowed us to dynamically scale our load, averaging \$1,200/mo in cost savings as well as a 40% increase in speed during peak loads.
- Worked with stakeholders to create new requirements and features, and then architecting solutions to be implemented by the development team.

Environment: Golang, Python, RDS(Postgresql), ReactJS, Redshift, Git, AWS

Senior-Specialist Applications Developer | AT&T

June 2016 - June 2018

Specialist Applications Developer/Scrum Master | AT&T

June 2015 - June 2016

Applications Developer | AT&T

June 2013 - June 2015

Software Engineer | StoneEagle Services Inc.

February 2012 - June 2013