(Alex) Siqing Liu

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EDUCATION

Amherst College | *Bachelor of Arts in Computer Science and History*   Amherst, MA | *May 2019*

- GPA: 3.8/4.0. Relevant Coursework: Data Structures and Algorithms I & II, Intermediate Statistics, Probability, Theoretical Statistics, Advanced Data Analysis, Computer Security, Game Theory, Mechanism Design

SKILLS

Languages: TypeScript / JavaScript, Python, SQL, R, HTML / CSS, Java (previous experience), *I also speak Mandarin*

Technologies: React, Gatsby, Apollo, GraphQL, Node.js, Express, PostgreSQL, Docker, Terraform, AWS (Lambda, SAM, CloudFormation, S3, SES, EC2, RDS, Cognito, Amplify), Alibaba Cloud (Time Series Database for InfluxDB), Git, jQuery

PROJECTS

Margins – margins.me

Full stack web app. Import Kindle notes using email, search/tag/edit/note/export. Heavily inspired by readwise.io

For architecture, Github Links, and discussion of design tradeoffs, see alexliusiqing.com/portfolio/margins/overview

- *Front End:* React SPA wrapped in Gatsby static site, deployed on Netlify. Amplify/Cognito for Identity-as-a-Service, 100% TypeScript, Apollo for client-side caching, GraphQL Codegen for type-safety, Ant Design and Emotion for UI.
- *GraphQL API:* Infrastructure-as-Code with Terraform, provisioned VPC, EC2, RDS using security best practices. EC2 hosts Docker-ized Nginx and Express running PostGraphile (programmatically generated GraphQL API). RDS running PostgreSQL, data security implemented with RBAC and RLS. HTTPS-enabled, authentication using JWT.
- *Serverless Microservice:* Used SES, S3, Lambda, Cognito to receive user emails, parse Kindle HTML attachment, and send notes to API. Continuous Deployment using SAM. Parsed HTML with a server-side jQuery library, Cheerio.

Yelp Dataset Challenge – alexliusiqing.com/portfolio/college/yelp-challenge

- Predicted star ratings (multi-class classification) with R (tidyverse, rpart, randomForest), conducted sentiment analysis

Boston Investment Conference 2017 Student Investment Idea Competition – alexliusiqing.com/portfolio/finance/bic

- Pitched Cinemark Holdings (CNK), one of 8 semi-finalists (undergraduates and graduates), won $3000 ticket

UChicago Midwest Trading Competition

- Won 3rd place in Portfolio Investing against 20+ college teams, used Python (scikit-learn, NumPy, Jupyter)

WORK EXPERIENCE

Siroo Technology, 自维度技术应用（深圳）| *Software Consultant*   Shanghai, China | *May – July 2020*

- Designed and built an IoT analytics stack for viewership data from 50k+ Set Top Boxes. KPIs made available real-time on dashboard. Shrunk storage size to < 1% of original MySQL database. Details: alexliusiqing.com/portfolio/iot-analytics
- Built using Alibaba Cloud Function Compute, TSDB (Time-Series Database, InfluxDB), and Grafana.

Barclays | *Sales and Trading Analyst*   New York, NY | *June 2019 – January 2020*

- Joined Single Stock Equity Derivatives in the healthcare team, covering bio-tech, med-tech, pharma, distributors, etc.
- Researched and developed financial modelling app, built with R (Shiny) and Bloomberg API, to predict equity price distributions after bimodal events from the options chain. Used to identify and verify mispriced options.
- Analyze catalysts – clinical trial statistics, FDA actions, litigation, conferences. Pitched trades that generated 100k+ in PnL

Barclays | *Sales and Trading Summer Analyst*   New York, NY | *June 2018 – August 2018*

- High Yield Trading, Macro Structuring, and eFX Trading. Analyzed client sensitivity to FX spreads using kdb, R.

Fidelity Investments | *Equity Sector Specialist Intern*   Boston, MA | *June 2017 – August 2017*

- Assisted with 2 industry reviews (Indian Media, Plastics and Packaging) and 8 stock initiations; ran regressions in R

Amherst College   Amherst, MA | *September 2016 – May 2019*

Department of Computer Science: Teaching Assistant; Department of Mathematics & Statistics: Grader and Teaching Assistant; IT Support Specialist; Libraries: Archives & Special Collections Assistant;

Harvard Forest REU: Data Provenance in R | *Software Developer*   Petersham, MA | *May 2016 – August 2016*

- Developed cache feature with command-by-command tracing of dependencies; feature for RMarkdown file read-in.
- Presented software improvements to 50 plus Harvard Forest faculty; used R, Java, Apache Ant.