

Victor Song

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Software engineer experienced in full stack development and data science. Passionate about building large scale distributed systems, high performance web applications, and developer tooling.

Experience

Software Engineer

CAPITAL ONE

August 2022 - present
Cambridge, MA; Plano, TX, USA

- Maintain 4 Lit micro-frontends, 3 NodeJS microservices, and 2 Python AWS Lambdas which manage all production releases for over 500 Agile teams and over 5000 applications
- Built 3 Spring Boot microservices which process over 10,000 credit bureau disputes per day and save \$20 million per year in costs; streamlined support agents' workflow to a single screen
- Contributed to a high traffic Go application proxy which intercepts API responses to tokenize PANs

Technology Internship Program

CAPITAL ONE

June 2021 - August 2021
Richmond, VA, USA

- Developed an Angular frontend to increase credit card application rates by 24% on an Agile team

Undergraduate Researcher

PATHS-UP ENGINEERING RESEARCH CENTER

June 2020 - August 2020
Houston, TX, USA

- Created a novel Python framework to group 75 Type 2 diabetes patients by activity level using principal component analysis and k-means clustering

Frontend Engineer

MINIMAP

April 2020 - July 2020
Remote USA

- Built 2 iterations of the Minimapp website, a location based social media app, using React and Svelte

Team Lead

RICEAPPS

September 2018 - May 2022
Houston, TX, USA

- Led and mentored a team of 6 developers to build a Swift app to grow social networks at Rice
- Mentored a team to build a food pickup website for 3 Rice businesses using React and GraphQL

Skills

Languages: Java, Python, Go, HTML/CSS, JavaScript, TypeScript, Rust, C/C++, R

Frameworks: Spring Boot, React, Angular, Svelte, Lit

Technologies: NodeJS, GraphQL, MongoDB, PostgreSQL, Pandas, NumPy, SciPy, Docker

Certifications: Amazon Web Services Solutions Architect - Associate

Contributions: Rust, Rust Analyzer, Zig Language Server, Python attrs

Education

Bachelor of Arts in Computer Science and Statistics

WILLIAM MARSH RICE UNIVERSITY

August 2018 - May 2022
Houston, TX, USA

Courses: Machine Learning, Probabilistic Algorithms, Compilers, Operating Systems, Parallel Compute

Projects

Thermostart

RICE IGEM CLUB

May 2019 - November 2019
Houston, TX, USA

- Developed a Python program to design RNA thermometers using a Pareto-based genetic algorithm which caused a 11x increase in protein expression between 25 and 37 °C

Thoth

HACKRICE 11

September 2021
Houston, TX, USA

- Built a Python program generate transcripts and notes from slides on lecture recordings using OpenCV for optical character recognition