Charles Bethin

Data-Driven, React-Focused Full-Stack Software Engineer

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Hoboken, NJ

EDUCATION

Stevens Institute of Technology
M.E. Computer Engineering, 2020.
B.E. Computer Engineering, 2019

SKILLS

Languages

JavaScript	TypeScript	Python
HTML / CSS	SQL	Swift
Go	Java	Kotlin

Libraries & Frameworks
React, React Native, Vue.js, Node.js, Flask, Express.js, Keras, TensorFlow, PyTorch, SwiftUI, Swagger, Pandas, Numy

Tools
Git, PostgreSQL, MongoDB, CircleCI, FullStory, AWS, GCloud, IBM Cloud, Docker, Kubernetes, Snowflake,, Apache Spark, Hive, Tableau, Sketch, Figma

Concepts
Enterprise Design Thinking
New Product Development
Big Data & Machine Learning
Agile & Running Scrums
UI/UX Design
RESTful API Design
Internet & Networks Design
CDN Architecture

Hackathons

JPMorgan Code 4 Good   *Sept 2019*
– *3rd Place*, Designed in-person validation system to protect academics

Launchpad Hackathon   *Nov 2016*
– *1st Place*, Created business model and network design optimizing video traffic

TECHNICAL EXPERIENCE

Petal. *Software Engineer II, Full Stack - Growth*   *Feb 2021 - Present*
- Led React/Expo-driven user-facing feature launches, impacting 100k+ applicants, with backend development in Python.
- Spearheaded testing standards implementation in a React environment, elevating test coverage from <30% to >80% over ~8 months.
- Enhanced adherence to advanced React standards, rectifying bugs and yielding over $30k in annualized savings.
- Mentored a summer intern, crafting a React-based interactive frontend testing tool and illuminating key data insights regarding Plaid data usage.
- Orchestrated the migration of critical tools/frameworks (Webpack 5, Yarn Workspaces, Jest, Nightwatch, etc.), facilitating a seamless transition and improved development efficiency.

IBM. *Full Stack Software Engineer*   *Jun 2019 - Feb 2021*
- Collaborated with third-party clients, identifying core issues, and delivered innovative MVP solutions using React and other technologies, swiftly acquiring new tools and languages as needed.
- Directed the full-cycle development and deployment of a React Native COVID-19 data app, serving over 10,000 users.
- Led a volunteer engineer team in delivering a crucial data dashboard using Scrum methodologies.
- Designed and implemented data visualizations, optimizing data processing via an efficient MapReduce model.
- Served as a data analyst for a third-party client, employing SQL and Snowflake to refine data warehouse models, identifying, and documenting areas for improvement.

Stevens Institute of Technology. *Sponsored Researcher*   *Jan 2017 - May 2019*
- Innovated a mental health machine-learning app utilizing React, Flask, and PyTorch on GCloud, focusing on data-driven insights for mental health monitoring.
- Led the development of a WebRTC video chat app, optimizing handshake signaling for cost efficiency.
- Engineered a real-time network visualization iOS app, leveraging high-performance C++ router software for live packet inspection.
- Developed a CDN environment demo, employing Go on AWS and React for intelligent network protocol tracking and packet routing visualization.