GUNDEEP SINGH — SOFTWARE ENGINEER

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EDUCATION

University of Illinois at Urbana - Champaign Aug 2017 - May 2020
Bachelors of Science, Computer Engineering

Related Coursework: Data Structures; Algorithms; System Design; Systems, Application and Network Security; Machine Learning; Parallel Programming; Artificial Intelligence; Computer Architecture; Discrete Mathematics; Probability with Engineering Applications; Networks

Languages: Elixir, Kotlin, Java, C++, C, Python, Clojure, HTML/CSS, React.js, Scala, SQL, x86 Assembly
***Frameworks/Tools*:** Retool, Datadog, Kubernetes, GraphQL, Flask-RESTPlus, Jenkins, PostgreSql, Kafka, Amazon S3, Spring, Mockito, Material UI, Bootstrap, Github, PyTorch, Numpy, Webpack, Android SDK, Ajax, JQuery, CUDA, Spacy, CircleCI

EXPERIENCE

Brex New York City, NY
Software Engineer – Venture Backed Deposits Oct 2021 – Present

- Improved customer experience for high-risk customers by enabling incoming ACH and wire transactions.
- Coordinated efforts with Operation teams to improve their daily experience by identifying slow database queries and leveraging Partial Indexes to optimize query. Resulted in a reduction of page load times by 50%.
- Helped team onboard a new team member being an onboarding buddy, performing on – call duties, and leading team retros

Bloomberg New York City, NY
Software Engineer – Connectivity Registry Aug 2020 – Oct 2021

- Researched and presented distributable and scalable solution to redesign auditing system; new designed focused on guaranteeing atomic audits
- Redesigned permission checking function to more effectively use network bandwidth, resulted in performance increase of function by 50%
- Coordinated with teams across the firm to design and implement a new feature using Python and Flask that allows customers to add private line (leased line) IP entries to IP allowlists.

Hubspot Remote
Software Engineering Intern – Authorization/Authentication Team Jun 2020 – Aug 2020

- Primarily on system used to determine whether operations to teams were safe to perform. Increased resiliency of the system and reduced deploy time of system from 15 minutes to 1 minute
- Introduced additional checks which looked at S3 Buckets and Kafka Topics owned by teams
- Added new feature to move teams that were unused from the main tree hierarchy to a separate tree hierarchy for these vestigial teams, resulted in 20% increase in team related queries
- Participated in daily stand-up meetings and contributed to quarterly planning meeting with possible tasks for the upcoming quarter

GradeSaver (Available on Play Store, 3000+ downloads) Rosemount. MN
CEO and Software Developer May 2018 – Present

- Extracted key insights regarding assignments from data points to rank each task in order of importance
- Exploited Java Object Oriented Principles to develop custom objects, allowing for quick user experience. Stored data in Firebase Realtime Database via asynchronous REST APIs to ensure seamless data retrieval
- Leveraged CI/CD pipeline to enable build and deploy of main branch on version control

Bluetooth Low Energy Research Urbana, IL
Undergraduate Researcher under Prof. Robin Kravets Jan 2020 – May 2020

- Developed C++ code to send small packets to a receiver. Processed packets at receiver to log RSSI from multiple senders
- Analyzed RSSI signals to determine relation between distance and RSSI. Determined if two different senders at different distances from the receiver could be identified based on their RSSI

PROJECTS

CNN Library Urbana, IL
Software Engineer Nov 2019 – Dec 2019

- Built the forward function for the convolutional layer which employed key parallel programming techniques under CUDA framework
- Optimized forward kernel by using shared memory, unrolling, parameter testing