Sohan Patil

Github: github.com/sohanpatil
Portfolio: sohanpatil.github.io

LinkedIn: linkedin.com/in/patil-sohan
Email: sdpatil@cs.stonybrook.edu
Mobile: +1-631-800-6179

Skills

Languages: *Proficient* - Java, C, Go, Typescript, HTML; *Prior Experience* - Python, Swift, C#, PHP, SQL, Shell, JavaScript
Tools and Frameworks: Kubernetes, Docker, AWS, RabbitMQ, Linux Networking, Pandas, D3.js, Hadoop Stack, Spatial Databases, XQuery/XPath, NodeJS, Angular, Spring, Flask, ASP .Net, JSP, Mobile (Android, iOS), Maven, GIT, JIRA

Education

- **Stony Brook University** — Stony Brook, New York
  M.S. in Computer Science; ***GPA: 3.77/4*** — *Aug 2019 - Dec 2020*
  - **Teaching Assistant** (for a class of 200+ students): CSE 373, Analysis of Algorithms, Spring 2020
  - **Advanced Project** (http://bmidb.cs.stonybrook.edu/eyecando): Enabling ALS patients to use iOS apps like Notes, Mail, Smart Home and Music through eye gaze/movements. Tools used: Apple ARKit2, Swift 5, Firebase, CocoaPods
- **Government College of Engineering** — Aurangabad, India
  B.E. in Computer Science and Engineering; ***GPA: 8.35/10*** — *July 2013 - June 2017*

Work Experience

- **Nutanix** — San Jose, California
  Software Engineering Intern, CTO Office Team — *June 2020 - Aug 2020*
  - Achieved a 25% boost in pod networking performance by implementing a Kubernetes (k8s) CNI plugin with IPAM service for Nutanix Karbon k8s management solution. Tools used: Kubernetes, Go, gRPC, Netfilter
  - Developed a 67% cheaper Disaster Recovery solution for “Clusters on AWS” product featuring 1 minute RPO and 15 minutes RTO (Won 1st place in UHack ’20). Tools used: AWS, Wireguard, Zookeeper
- **Principal Financial Group (PFG)** — Pune, India
  Software Engineer — *July 2017 - Aug 2019*
  - Engineered an in-house OCR based document-data capture web tool, as a replacement to IBM’s DataCap, potentially saving $500,000 per year in licensing costs. Tools used: PyTesseract, Spring Framework, Angular 5, OAuth2
  - Implemented a batch synchronization tool between on-premise data warehouse and public cloud, saving 150 working hours per sprint. Tools used: Mulesoft, DB2 LUW, Salesforce Cloud API
  - Slashed go-live time to 30% as a consequence of automating day-to-day maintenance tasks around Git and code vulnerability analysis. Tools used: Shell, Selenium, HP Fortify, SONAR
  - Trained six interns on domain knowledge as well as Agile practices, Git, Angular and Bootstrap Framework

Key Projects

- **KVStore:** Built a fault-tolerant, serializable distributed key-value store using Raft algorithm for consensus in Go (Fall ’19)
- **Distributed MapReduce**: Built a MapReduce scheduler in Go with ability to relaunch failed map/reduce jobs (Fall ’19)
- **COVID-19 Analysis:** Used Hadoop MapReduce and Apache Spark to process COVID-19 datasets and find trends. Visualized the insights using D3.js framework (Spring ’20)
- **Slide to Type**: Built a multi-channel sokgraph detection tool using SHARK^2 algorithm to implement a clone of SwiftKey keyboard using Flask. Used multiprocessing module to boost gesture recognition speed to 5x (Fall ’19)
- **Spoiler Blocker Chrome Plugin**: Used JQuery & TMDb API to blur Facebook wall posts with movie spoilers (April ’19)
- **Simple DB**: Implemented a basic clone of SQLite which uses B Tree and B+ Tree as Index and Page file nodes (Jan ’19)
- **Remote File Security System**: Used C# & .Net Framework to create a secure desktop file manager operable through an Android app via RPCs. Helped users to view, delete, encrypt, decrypt, hide personal files on a shared computer (2017)

Achievements & Extracurricular

- **1st place, Nutanix Intern Hackathon**: Built a low-cost Disaster Recovery solution for "Clusters on AWS" (July 2020)
- **1st place, PFG Hackathon**: Used Google Web Speech API & ML to manage JIRA service tickets through voice (Jan 2019)
- **1st place/800+, PFG Rising Star Award**: Recognized as the best performer below 3 years of experience (May 2018)
- **2nd place/75000+, SEED Maha IT Idol** (news link): An intercollegiate state level coding competition (Apr 2016)