

# Sohan Patil

Github: [github.com/sohanpatil](https://github.com/sohanpatil)

Portfolio: [sohanpatil.github.io](https://sohanpatil.github.io)

LinkedIn: [linkedin.com/in/patil-sohan](https://linkedin.com/in/patil-sohan)

Email: [sdpatil@cs.stonybrook.edu](mailto:sdpatil@cs.stonybrook.edu)

Mobile: +1-631-800-6179

## Skills

**Languages:** Proficient - Java, C, Go, SQL, HTML; Prior Experience - Python, Swift, PHP, NoSQL, Shell, JS

**Tools and Frameworks:** Kubernetes, Docker, AWS, RabbitMQ, Linux Networking, Pandas, D3.js, Hadoop Stack, NodeJS, Angular, Spring, Flask, ASP .Net, JSP, Mobile (Android, iOS), Maven, GIT, JIRA

## Education

- State University of New York at Stony Brook** 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** ([bit.ly/eyecando](https://bit.ly/eyecando)): Enabling ALS patients to use iOS apps like Notes, Mail, Smart Home and Music through eye tracking. 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 CNI-IPAM plugin for Nutanix's managed Kubernetes service. Tools used: Kubernetes, Go, gRPC, Netfilter
  - Developed a 67% cheaper Disaster Recovery solution for "Clusters on AWS" product featuring 1 minute per recovery point and 15 minute recovery time (Won 1<sup>st</sup> 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 Optical Character Recognition based claims processing tool, replacing IBM's Datacap, thus saving \$500,000 per year in licensing costs. Tools used: PyTesseract, Spring, Angular, 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 capable of relaunching failed map/reduce jobs in Go (Fall '19)
- COVID-19 Analysis:** Used Hadoop MapReduce and Spark to process COVID-19 datasets while visualizing the insights using D3.js framework. Used spatial databases to find hospitalization trends (Spring '20)
- Slide to Type:** Built a multi-channel sokgraph detection tool using SHARK<sup>2</sup> algorithm as 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

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