CHARVI SHAH
3A MECHATRONICS ENGINEER
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WORK EXPERIENCE

Solution Architect Intern | Emailtopia
January 2019 - April 2019

- **Project Lead** for Emailgistics Authentication & Onboarding solutions following complete **software development cycle**
- Designed & implemented authN/authZ with **OAuth2 SSO**, **JWTs** & **Cookies**, employed gorilla/csrf to prevent CSRF attacks
- Architected 5min onboarding process creating a user interface in Outlook with **Microsoft Graph API** & storing data in **MongoDB**
- Created robust Outlook monitoring system to ensure real-time action from Emailgistics with Microsoft webhook mechanism

Junior Full-Stack Developer | Emailtopia
May 2018 - August 2018

- Developed Emailgistics, a shared mailbox management tool with **Microsoft Graph API & Golang**
- Built round-robin **AI solution** to monitor user status & automatically distribute emails in 0.5s
- Refactored monolothic app into scalable REST microservices handling 10,000 RPS, deployed with **Docker** & **Kubernetes**
- Optimized **MongoDB** indexing, improved query efficiency by 20%

Software Developer Intern | Shaw Communications Inc.
September 2017 - December 2017

- Improved inventory management tools to provide users with consolidated access to multiple databases through one UI

Software Developer Intern | Asset Science Inc.
January 2017 - April 2017

- Implemented video camera diagnostic in **Android Studio**
- Performed bug fixes from UI to backend code

PROJECTS

Space Invaders Video Game - C

- Designed & implemented space invaders style video game on **Keil Microcontroller** using CMSIS-RTOS RTX API
- Learned to interface code to peripherals including LCD Screen, Joystick, Push Buttons via interrupts & polling

Family Tree - C++

- Implemented N-ary tree using first principles that maps family trees & relationships between any two members

SKILLS
- 5 years of experience with agile methods
- OOP, TDD, Microservice Architecture
- Writing maintainable, efficient, scalable code

LANGUAGES
- C/C++, Golang, Java
- HTML & CSS, Python, Javascript, Powershell
- English, French, Gujarati, Hindi

TECHNOLOGIES
- MongoDB, HTTP, REST, JSON, OAuth, JWT, XML
- Git, JIRA, Bitbucket
- Kubernetes, Docker, Jaeger Tracing
- Bamboo, Jenkins, Maven, Nexus
- AutoCAD, SolidWorks

SCHOOL COURSES
- Digital Computation
- Data Structures & Algorithms
- Microprocessors & Digital Logic
- Computer Structues & Real Time Systems

AWARDS
- Microsoft Hack Productivity 4 - Best Outlook Solution ($7000 USD Prize)

INTERESTS
- UW Hip-Hop Dancer
- Youth Theatre - Actor, Director
- Travelling
- K-pop, Netflix