Gavin Bains

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EDUCATION

University of Southern California – Viterbi School of Engineering   **Graduation: May 2020**
Major: Computer Engineering and Computer Science
Minor: Cinematic Arts – Game Design Emphasis
Organizations: LavaLab, Scope, Makers, Engineers Without Borders, Model UN, Liquid Propulsion Lab, Novus Think Tank
Coursework: Software Development (CSCI 201), Mobile Applications (ITP 140), Algorithms (CSCI 270), Robotics (CSCI 445), Linear Algebra and Differential Equations (MATH 245), Data Structures and Object-Oriented Design (CSCI 104), IoT (EE 250)

WORK EXPERIENCE

Tesla   **Fremont, CA**
Software Engineer Intern   May 2019 – Present
- Developed backend for tesla document management in Go
- Built tools to interface with Salesforce using python
- Built Tesla map software for dashboard in ReactJS

Autonomous Networks Research Group   **Los Angeles, CA**
Blockchain Researcher – Internet of Things research with Dr. Bhaskar Krishnamachari   August 2018 – Present
- Blockchain research to decentralize marketplaces in smart cities using IoT
- As a member of USC Makers, built platform to gather data from classrooms to monitor and analyze student engagement
- DARPA-funded research in decentralized distributed computing using blockchain
- Boeing-funded research in decentralized drone control and security

IBM   **San Jose, CA**
Software Engineer Intern   May 2018 – August 2018
- Designed, built, and trained asset classifier with Scikit and Watson Understanding for Natural Language Processing
- Flown to Austin, TX to present Machine Learning model and report-analyzer to executive board
- Presented competitive landscape to VP of Development, Director of Hybrid Cloud, and executive Hybrid Cloud Team
- Programmed path-finding protocols for IBM Pepper to lead new hires around the campus using NAOqi Python
- Worked with Watson Knowledge Studio team to build machine learning features on IBM Cloud

Hoverstate Inc.   **Oakland, CA**
Software Engineer Intern   May 2017 – August 2017
- Used Laravel PHP, JavaScript, AngularJS, to build a communication platform from scratch for pharmacies and doctors
- Utilized Eloquence for effective Database handling
- Designed and built MySQL relational databases to store user information

PROJECTS

Dash   **Boulder, CO**
HackSC Project - Winner   February 2018
- Winner of Grand Prize and Winner of Best Machine Learning Hack
- Developed smart dashcam that uses a phone's camera to automatically identify and populate a map interface with traffic data

Reddit for Desktop   **Los Angeles, CA**
Scope SC – ElectronJS Developer   September 2018 – Present
- Utilized ElectronJS to port Reddit into a desktop application
- Designed and implemented frontend with ReactJS

Sherlock: Watson-Powered News Delivery   **San Jose, CA**
IBM Intern Hackathon   July 2018
- Machine Learning news analysis with Watson and IBM Cloud
- Gauged sentiment of articles and emotions of readers
- Determined concepts associated with articles for cross-referencing to identify fake news

Sozu   **Los Angeles, CA**
LavaLab Start Up Incubator – Co-founder   February 2018 – May 2018
- Designed and implemented video journaling app to streamline introspection in the millennial generation
- Integrated time capsule features to model One Second Everyday
- Developed in Swift for iOS

AgriWave   **Boulder, CO**
HackCU IV Project - Winner   February 2018
- Winner of Best Unmanned System awarded by HackDFW/AUVSI
- Developed platform based on FreeWave IoT technology to transmit data from remote areas of the world without Wi-Fi connection
- Utilized Alteryx for data analytics and graphing to find trends in agriculture to optimize production in developing countries

Smart Fridge   **Santa Barbara, CA**
SBHacks IV Project   January 2018
- Led a team of three to develop a fridge capable of using image recognition to send recipes to your phone
- Utilized Google Firebase, Python, and Clarifai API to identify and parse ingredients in the fridge.
- Transmitted recipe data from Firebase to phone with Android Studio

LEADERSHIP EXPERIENCE/ COMMUNITY INVOLVEMENT

USC LavaLab   **Los Angeles, CA**
Director of Operations   December 2018 – Present
- Lead semester-long curriculum focusing on fundamental startup skills for top 5% of USC's designers, developers, and product managers

ADDITIONAL SKILLS

Programming Languages: C++, Java, Go, PHP, AngularJS, SQL, RobotC, Objective-C, NodeJS, Javascript, Python, Swift, React
Operating Systems & Tools: Ubuntu, CentOS, Android, Git, Jenkins, Twilio, Laravel, OpenCV, Unity, IOT, Spring, Spider, Machine Learning, SciKit, NLP, RevealJS, IBM Cloud, Watson, NAOqi, Blockchain, Django, Iota, Hyperledger, Ethereum, Travis