Vikram Venkataramanan

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🏛 EDUCATION

Honours B.Sc. Computer Science University of Toronto, Class of 2020, **Recent Graduate**

💼 WORK EXPERIENCE

Software Engineer | Per Vices   May 2020 - current
  Building Software Defined Radios (SDRs). Work details under NDA.
Software Stack: C (for circuitry and firmware), C++ (for libUHD radio peripheral userspace driver), mkdocs (for support site)

Fullstack Developer | ecobee SmartBuildings   May 2019 – Aug 2019
  Implemented subscription paywall and push notifications for web, android, and iOS platforms.
Software Stack: typescript, mongodb, react with redux for frontend, portainer for managing microservices
• Created **react/react-native components** for thermostat settings and tested them with react-testing-library
• Connected daily processing service to mongodb to **manage subscription status** and **display paywall**
• Set app to trigger **push notifications** using expo framework for various user states

Web Developer, APIs | ecobee   May 2018 – May 2019
  Crafted and scaled ecobee's new Gateway API to handle over a million active users.
Software Stack: typescript, graphql, REST, gRPC, redis, kubernetes for deploying to google cloud platform
• Worked with frontend, backend and data science teams to **design and develop API** for eco+ and home monitoring
• Increased **test coverage to over 99%**. Integration tested all new features and introduced contract testing
• Used high test coverage as basis to advocate for **testing in production** approach to development
• Introduced **logging and distributed tracing (Istio and OpenTracing)** between teams / microservices
• Wrote in-depth 'Getting Started' documentation including video walkthrough of the codebase
• Participated in **on-call rotation**. Kickstarted a **playbook** with entries for patching Kubernetes deployments

Software Developer | Meazure Up   Summer 2017
  Used google app engine to deploy django and react.js applications to Google Cloud Platform.
Software Stack: react with flux, python/django, mysql, google app engine for deploying to google cloud platform
• Introduced **error handling** and **unit testing**.
• Built **mobile navigation** for web view using **CSS Media Queries**
• Wrote **python script** to verify and **enter location data into a SQL database**.

⑂ PROJECTS

Distributed Key Value Store (C sockets and pthreads)
5 nodes, each with redundant replica set

Build Your Own SDR (js + php)
Single page webapp to help decide your radio order

Ubersicht battery widget (js with styled-components)
350+ downloads
Unobtrusive battery indicator for Mac OS

ecobee shades
Raspberry pi to connects office blinds to ecobee platform.
Blinds respond to time, light sensor and alexa commands.

Variational Autoencoder (julia)
Used standard normal priors and Bernoulli likelihoods to train encoder/decoder network.
Map images of digits to and from a distribution of reduced two-dimensional (latent) spaces

🏆 ACHIEVEMENTS

• **domain.com prize at UofTHacks Hackathon 2017** Reddit to Spotify Playlist (python flask)
• **2nd place at Cisco DevNet Hackathon 2016** Car parking payment app (android/java)