

DUSTIN ENGLE

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EXPERIENCE

Pagarba - Senior Blockchain/Software Engineer

Feb. 2019 - Present (Remote)

- Upon immediate start, I assisted in the architecture and development of a DIY IoT blockchain marketplace system that utilized proven cryptographic techniques to provide end to end security, customized an IoT gateway system to integrate with blockchains, and developed a fault-tolerant multithreaded Python interface to the platform. Tags: MainFlux, IoT, Go, Python 2, Docker, Docker-Compose, PostgreSQL, Redis, InfluxDB, Cryptography, AWS
- Designed and developed a GPS tracking system that integrates with an IoT mesh network system using the ESP8266 microcontroller and UI to view and manage the network. Tags: C/C++, Arduino, ESP32, LoRa, WiFi AP/STA, Gossip-like Mesh Networking Protocol, GPS, React, Cryptography
- Participated in the 2019 AngelHack CallForCode challenge where my team provided an emergency response system based on cellular networks, and WON, in which I provided architecture and development support for 2G, 3G, and LoRa IoT that could communicate with other mobile devices. Tags: C/C++, SQLite3, Python 2, LimeSDR, Osmocom, ESP32, 2G, 3G, GPRS, GSM, Abis/IP and 3GPP AoIP, HLR, M3UA, SUA, GTP, BTS, BSC, MSC, HLR, STP, PCU, Cryptography
- Supported the launch of a nurse staffing application and created a mobile app that allowed for geolocation-based search results for hospitals participating in the platform that is currently deployed on Apple and Google. Tags: Python, Django, MySQL, React, React-Native, Docker, AWS, Terraform, Expo, Bitbucket Pipelines, Cryptography
- Engineered an API and mobile app that allowed for anonymous reporting of gunshots by users that is currently on Google Play. Tags: PHP, Slim, React, React-Native, Redux, Expo
- Designed, developed, and managed a team in the development of an AI-powered mobile app that provides Lego part recognition and automated notifications when new Lego sets can be built. Lego instruction manuals are scanned using OCR to add entire set of pieces to the inventory. Tags: Go, Python 2, Tensorflow, Tensorflow.js, React, React-Native, SQLite3, PostgreSQL, Tesseract, tfjs-react-native, Expo
- Creating a process to simulate real-world training data for the Lego piece recognition model using CAD generated image by LDraw. Tags: Python 2, scikit-image, LDraw, Tensorflow
- Created a Byzantine Fault Tolerant Distributed Ledger aka Blockchain for an IoT lock and tracking based startup client. Tags: Go, Tendermint, CosmosSDK, Redis, Python 2, React, React-Native, PHP, Stripe, QR, Cryptography

Bulwark Cryptocurrency - Blockchain/Full-Stack Developer

Jan. 2018 - Feb. 2019 (Remote)

- As a blockchain development lead, my experience ranges from proof-of-work and proof-of-stake algorithms, hashing, and other cryptography algorithms, sporks, governance, hard/soft forks, quality assurance, zerocoin, TOR/I2P, and database systems (LevelDB, IFPS, etc.) in C, C++, Go and Python.
- As the lead on the new blockchain explorer, I managed guest developers tasks, provided code reviews, interacted with the design team to deliver on the vision, architected the system utilizing JavaScript full-stack (Node.js, Express, Mongoose/MongoDB, React, Redux, SASS), and provide overall management of the open-source project.
- Lead developer for BWK-Dash which provides an interface to Bulwark' Secure Home Nodes that run a hardened masternode version on an IoT device in Go, React, and using SQLite for a database.
- Provide guidance, management, and participation in the research of all open source and hardware projects.

- Function as a product owner, scrum master, and developer in Scrum teams.

Tagrem - Full-Stack/Software Developer

May 2016 - Jan. 2018 (*Remote*)

- I constructed the entire framework of React components including forms with validation, fetch request buffering, client-side caching, and redux async script automation.
- As a team leads, working in conjunction with designers and developers to deliver high traffic multi-tenant systems in Angular (Angular Material, Bootstrap) and React (Redux, React Router, Redux Thunk, WHATWG Fetch).
- Setup and configured CI (Jenkins), Git repository system (GitLab), and integrated with issue tracking (JIRA) and chat system (Slack).
- Setup and configured project build and deployment processes utilizing Gulp, Webpack, Jenkins, Webhooks, and Bash.
- Lead code reviews with the development team and participated in daily scrums and assisted in the training of new team members.
- Wrote Java file migration script with PostgreSQL and binary image uploading.

Bill People - Software Engineer/Architect

Feb. 2014 - May 2016 (*Remote*)

- Engineered a real-time automated support call center system (Node, Meteor, MongoDB, Handlebars, Mustache) with connectivity to Asterisk/AMI, billing software (Node, Microsoft SQL), MikroTik WiFi access points (Node) and email (Node - POP3, SMTP).
- Designed and developed a mobile app (PhoneGap, Ionic, SQLite) for remote technicians to interface with the Bill People support system API. The app includes push notifications, local caching, photo-taking, online/offline connectivity handling, image uploading, and geo-fencing for technician check-ins.

Schat Communications - Software Developer

Jan. 2013 - Jan. 2014 (*Bishop, CA*)

- Developed a restaurant drawer closeout system (PHP, MySQL, MVC) with reporting and a DSL (Domain Specific Language) for custom validation and reporting workflows.
- Converted server data center (Microsoft SQL, Exchange, Active Directory, IIS) to a Linux based virtualized infrastructure (CentOS, ProxMox, KVM) and set up a backup system (ProxMox, NFS).
- Created migration scripts and automated system (Python) for converting from one support system (Rodopi) to another support system (Deskpro).
- Developed several WordPress and Joomla sites for customers of the ISP.
- Made a WordPress (PHP, MySQL) plugin to handle updating and minor geolocation functions for ISP gateways and access points.
- Developed a CMS in ColdFusion for local mountain engineering guide company.
- Built a custom online store (PHP, MySQL) that interfaced with PayPal for payment handling. MVC framework (PHP) was custom built by me for this project.
- Helped a local real estate company by developing an online property management system (PHP, MySQL) with MLS integration using the CodeIgniter framework.

Military and previous civilian experience available upon request.

SKILLS

Programming Languages

C, Go, JavaScript, PHP, Python

Technologies

Blockchain/DL, Cryptography, Node.js, NoSQL & SQL, React.js, React-Native