RUSSELL DECKER

Denver, Colorado ● 720. 527.8242 ● russell.decker@colorado.edu

CAREER OBJECTIVE

Through the use of smart contracts, trustless systems, and artificial intelligence I hope to help create a more efficient digital healthcare system that accomplishes true autonomy without compromising functionality.

EDUCATION

University of Colorado, Boulder, CO — Expected 2018 B.S.

Computer Science, Philosophy — Computer Science GPA: 3.2

Relevant coursework: Algorithms (Python), Computer Systems (C), Data Structures (C++), Discrete Structures (Python), Linear Algebra with CS application (Matlab), Probability and Statistics(R), Engineering Projects (Arduino), Data Mining (Python), Intro to Artificial Intelligence (Python), Operating Systems (C), Database Systems (SQL and noSQL), Human Centered Computing (JavaScript)

SKILLS

Programming: Golang, C/C++, Python, JavaScript, TypeScript, Bash, HTML, CSS, Java, C#, Matlab, C#
Environments/Technologies/ Data Models: Hyperledger Fabric, Hyperledger Composer, React/Redux, Linux, Github, Pivotal Tracker, SMART on FHIR, CDM, Team Foundation Server, Git, ASP.NET, Angular2, NodeJS, MySQL, MongoDB, Agile, SwaggerHub,

PROFESSIONAL EXPERIENCE

MedChain Inc — Centennial, Colorado

Lead Blockchain Developer — May 2018- Current

Core developer for MedChain blockchain as a service product. Created hyperledger fabric blockchain with numerous organizations and channels. Stored metadata about medical records on blockchain. Wrote chaincodes(smart contracts) to store medical record objects in distributed file system. Also built React/Redux applications to demonstrate blockchain capabilities

DaVinci Software Solutions LLC — Rochester, Minnesota

Associate Analyst Programmer — January 2018- May 2018

Contributing team member for front end development and analyst of a precision medicine decision aid using Decision Model Notation (DMN) and Business Process Model and Notation (BPMN)

Mayo Clinic — Rochester, Minnesota

Software Development Intern (Paid) — May - December 2017

Helped development and architecture of Mayo Expert Adviser 3.0 (MEA3) web application, a precision medicine approach to decision aid using Decision Model Notation and Business Process Model and Notation. Responsibilities included optimizing end users experience, parsing and rendering FHIR payloads in Angular2 web app, and built an analytical tool to optimize future application development

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Center for Cognitive Ubiquitous Computing Laboratory (CUbiC) Tempe, AZ

Software Development Intern (Unpaid) Summer 2015

Assisted a team of graduate students on NeuroVis - an EEG communication device that allows ALS or paralyzed hospital patients to communicate with their gaze leveraging the steady state visually evoked potential brain waves(SSVEP) as a control signal to select icons on an iPad. Responsibilities include programming an Arduino to filter background interference to identify and activate icon of interest on iPad.

PROGRAMMING PROJECTS

Analytic Tool for Mayo Expert Advisor 3.0, TypeScript & Java

Stores user sessions and nests other relevant usage deduced by click events as a BSON document in mongoDB to create a variety of views from which data can be analyzed for application optimization

TypeScript Object Generator for FHIR Resources, JavaScript

JavaScript program that generates TypeScript representation of FHIR resources from JSON FHIR structural definitions allowing for the parsing and rendering of payloads containing FHIR resources into TypeScript

Intelligent SIM (two player strategy game) Opponent, Python

Deployed minimax algorithm with alpha-beta pruning optimization, solution included novel scoring heuristic

Predictive Model for Ethereum, Python

Long short term memory neural network created using Keras module with TensorFlow backend, predicts exchange rate of Ethereum for next hour. Collected, cleaned, normalized and aggregated data from Poloniex API. Data visualization accomplished using python modules Plotly and Matplotlib

Multi-threaded DNS resolver, C

Requester threads copying URLs from numerous files into shared buffer, resolver threads reading URLs from shared buffer and calling DNS resolver service on URL, used mutexs to ensure integrity of program

Unix Simple Shell Programming, C

Wrote shell functions for process signaling and process control functions SIGCHILD, SIGINT, SIGTSTP

Digital Grade Storage and Interface, Python

Created a Django app for teachers in Sinaloa Mexico to manage students and update grades

System Security and Debugging, C

Exploited program vulnerabilities using buffer overflow attack (Assembly), code injection attacks and return-oriented programming attacks

Search Engine, Matlab

Created program that returned relevant documents using query vector and document matrix. Relevance determined by calculating angle between query vector and relevant documents

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OTHER WORK EXPERIENCE

Safeway Inc May 2016- present Boulder, Colorado Service Deli Clerk

Prepared, priced, and merchandised deli products while providing excellent customer service, certified in CPR