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## Seeking

Design, implement and fine-tune leading edge web applications  
Develop contexts and integrations for LLM models  
Realtime data application development  
Javascript, Typescript, Node, CSS (learning Python)

## Education

<b>Rose-Hulman</b>	Computer Engineering	BS	1992 - 1995
<b>Nebraska Wesleyan</b>	Computer Science, Physics		1991 - 1992

## Contract Software Developer (2010 - Present)

### Google Sheets Add-On for Marketing Automation Software

Started doing a few small scripts in the evening for someone working during the day at SplashThat. Moved onto a sheets based addon for integrating CRM APIs (Pardot/SalesForce, Pipedrive, Splash) so they can be imported into sheets. Involved a web app for billing and payments, integrated React app into sheets side panel after creating a functioning prototype in Vanilla JS. Postman was used to define and test the server side API.

### Golf Swing Analysis App - Refactored Server Side Cloud API (RTDB trigger based)

Combined 10+ projects into one, each cloud function on GCP was an individual project, allowed code reuse, easier debugging. Cleaned up several bugs and improved performance on billing and speed by refactoring promise/async based code to chain and return promises - reason for the hire was to stop cloud functions from timing out due to badly handled errors and/or not resolving.

### Web Application / Firebase Developer / Sensor Integration

Picked up a part done Smart Skipper Webapp and finished scope, supported native app developers with a server side API and code examples of how to integrate various sensor messaging. GPS coordinates, Google Maps, Vue, RTDB and integration to proprietary sensor messages. Asynchronous display of state from RTDB, API to send message to sensors and update RTDB.

### Server side API, Realtime data, AI integrations

Server side API to compliment Firestore iOS app. Integrated a few facial recognition APIs (picked the best of the bunch), identity verification API, generated suggestions based on profile matches and created test data with ability to insert copies per zipcode. Admin UI was web based using custom token for security. Firebase authorization including triggers to delete all related account data when a user is deleted.

### Sporting and Betting News Website

Scale on demand seo and social focused webapp (later phase native apps). Implemented when firebase functions were released with support for generating web pages server side.

## **Employee Engagement Software - with Charity focus**

Angular iterations from 1.5 to 4, Mongo, Node with a rich client. Solution to support OG tags was added mid project (server side), social feed application supporting a large variety of integrations. Design team had poor understanding of keeping data private versus posting to social sites such as Facebook and Twitter - had to communicate, coordinate and iterate to working solutions.

## **High/low guess game - server side for push notifications and data**

Started with a guess higher or lower game in javascript based on RTDB (Firebase) for users and integrating with their coin pricing API - was a test of concept - kept the scope small and delivered quickly and cleanly. Moved onto adding push notification for their existing coin trading app for high and low limit tests (not trades - sends notifications to phones) - new highs for coins were also sent to users (100k+). Handled storing the high/low limit tests stored by users with cloud function based API. Swagger.io was used as the API framework.

## **Self Funded and Community Projects (1998 - Present)**

**unacog.com** - Created a technical overview for a real-time datastore used for multi-user AI chat—primarily for secondary educators who want to add AI experiences to their courses. Technical overview available at.

<https://unacog.com/content/overview/> has a strong overview

**handtop.com** - Spreadsheet to 3D (webGL) tools based on Firebase platform. On going career focus to advance skills and provide RAD tools for creating 3D scenes to develop with.

<https://handtop.com/doc> has a strong overview

**locate.beer** - Local beer recommendation and suggestion system based on Firebase platform - SEO, Social and spreadsheet tools focus. Collaboration with local professionals to promote Nebraska brewed beer.

<https://locate.beer/overview/> has a strong overview

**Shared Game Lobby** - Open source realtime game lobby with a couple card games as an active starting point for Firebase, Firestore, etc project with users, online presence, realtime turn based games, game rooms, authentication, image storage, etc. Scale on demand using cloud functions. Code is available - including deployment instructions etc

<https://github.com/HuskerSam/sharedgamelobby> has a strong overview

1/98 - 8/21    **Mobile Product Developer**                      **Handtop**                      Lincoln, NE  
Bootstrapper (1999-2002) - Shareware applications for PalmOS include SuperNote  
Bootstrapper (2019-2021) - Virtual Reality and webGL development using BabylonJS

5/99 - 4/12    **POS/ICS App Developer**                      **Nebraska Book Company**                      Lincoln, NE  
Contractor (1999 - 2004) - Symbol Wifi Barcode reader running PalmOS Apps  
Employee (2009 - 2010) - Inventory, accounting and POS application maintenance

Contractor (2011 - 2012) - Update to PCI 3 - numerous changes to support new requirements

3/98 - 3/14 **UL App Developer** **Assurity** Lincoln, NE  
Employee (3/98 - 1/00) - Illustration Developer / Analyst / Lead  
Contractor (2/00 - 1/03) - Added and updated UL Products  
Contractor (6/13 - 3/14) - Worksite UL Product implementation

6/11 - 2/13 **Web Developer** **Social 27** Seattle, WA  
Redesigned booth and products presentation  
Designed and implemented quiz and polling system  
Assisted design and implementation of gamefication engine  
Optimization for page load time on asp.net webforms page generation

5/07 - 6/08 **UL App Developer** **All State** Lincoln, NE  
Windows C++ application for projecting insurance futures contracts (UL and VUL)  
Projections based on policy variations, output meeting model regs  
Implemented proprietary calculations for advanced market-based UL hybrid product

8/05 - 4/07 **Programming Manager** **Healthware** Lincoln, NE  
Medical billing software including electronic submission of insurance claims  
Managed sprints, automated testing and software releases in agile process  
Developed Macintosh interface and Intersystems Cache database integration

1/04 - 6/05 **Windows App Developer** **ASIWeb** Lincoln, NE  
Check imaging, crystal reports integration, multi-threaded ATM transport service  
Principal team member in agile process automating sprint tracking and unit testing

2/97 - 1/98 **Windows App Developer** **Information Technology Inc** Lincoln, NE  
Implemented windows interface features in a multi tier home banking system

7/94 - 02/97 **Control Systems Engineer** **Huffman Engineering** Lincoln, NE  
DOS interfaces, PLC programming, schematic creation and onsite startup