

“The Militia App”

Social Change App

Proposal for UC Davis Computer Science Dept.

Volunteer Agile Development through Trello, Portions GNU/Open

Giving structure for citizens to regain constitutionality and responsible behavior in government.

Project Value:

- Empower the public to organize through a social gaming phone app that allows citizens to record and report police incidents to a media style website, advertise demonstrations, and protect neighborhoods.
- Create a central location for communication and organization.

Core Functions: (Communications, Video Streaming, Map Deployment and Gaming)

- 1 - Individual and Group Encrypted Comms (See Slack)
- 2 - Report Incidents with Police to a Central Database (See POWER, Watchdog)
- 3 - Direct Video Streaming to Cloud Services, so Confiscation by Police is Impossible
- 4 - GPS Tracking/Tagging (See Waze) to Report Locations of Police, Traffic, Events, Etc.
- 5 - Need Emergency Backup Button Triggers Calls for Assistance and Opens Communication
- 6 - GPS Deployment (See IAGO)
- 7 - Web CMS Integration
- 8 - Military RPG Gaming/Voting (See Ingress and Generic Coin/Bill Games)

Client Business: Independent, No formal business structure, however the client has Web Development experience. Projects A-D may be created in/out of order or concurrently. Ambitious groups may add or subtract features to suit agile development. This can be as easy or hard as the teams want it to be. Do not be intimidated, the client is flexible. You've got this.

Sr Project, A, Server Platform Development

CMS and Database Selection, API integrations, Database Strategy, Function Strategy, Backend Development, Students generate a Unix Server Package for client.

Sr Project, B, Android Platform Development

Art/Design, Frontend CMS, Code Essential Functions and Module Cores, Map Core Content, Validation and Beta Testing. Students publish app beta version for Android Market in client name.

Sr Project, C, Android Platform Development

Communications and Streaming Video Integration, Incident Reports and Social Gaming. Students publish app alpha version for Android Market in client name.

Sr Project, D, IOS Platform Development

All modules ported for Apple devices.

Students will gain the skills and confidence, knowing all required portions needed for current phone app developments, to be successful in either supporting any business or building their own. Contact: preferably via telephone, 916.213.8669 (213-TONY) or via email, [tonygalatti@gmail.com](mailto:tonygalatti@gmail.com) . Thank you for your consideration,  
 - Tony Galatti :)

<p>Features:</p> <p><u>App</u></p> <ul style="list-style-type: none"> <li>- Global</li> <li>--- Decentralized Protocols</li> <li>--- Peripheral Integration</li> <li>--- Settings</li> <li>--- Notifications</li> <li>--- User Hierarchy</li>   <li>- Communication</li> <li>--- Slack integration</li> <li>--- Video insert to channel</li> <li>--- Cross/Multi Zone Channels</li> <li>--- Blog</li> <li>--- Member Search</li> <li>--- Dialer/Ringer</li>   <li>- Video Streaming</li> <li>--- App to App</li> <li>--- App to Website</li> <li>--- App to Cloud</li>   <li>- Create an Incident Report</li> <li>--- Written Report</li> <li>--- Post Video Report Details</li> <li>--- Sends to Website</li> </ul>	<ul style="list-style-type: none"> <li>- Map</li> <li>--- Geolocation Modes</li> <li>--- Geographic Zoning</li> <li>--- Range Zoning</li> <li>--- Markers</li> <li>--- Deployment</li> <li>--- Formation Overlay</li>   <li>- Social Gaming</li> <li>--- Team Merging</li> <li>--- Voting</li> <li>--- Game Score</li> <li>--- Fiat Rewards</li> <li>--- Passcodes</li> <li>--- In App Store</li>   <li>- Presentation</li> <li>--- Message Board</li> <li>--- News</li> <li>--- Training</li>   <li><u>Website</u></li> <li>- Media Presentation</li> <li>- Message Board</li> <li>- Administration</li> </ul>
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Ground Penetrating Radar / Magnetic Density Imaging Software  
Proposal for UC Davis Computer Science Dept.  
Volunteer Agile Development through Trello, Portions GNU/Open

Project Value:

Open source software to control, collect and process resonant radio signals for underground imaging. Software / Firmware Development Only, Raspberry Pi or USB Hardware Provided.

Core Functions:

- 1 - Transmission coil control
- 2 - Location and signal collection
- 3 - Phase shift processing
- 4 - 3-D Imaging

Note: A member of the team should be comfortable with programming calculus. Do not be afraid.

Synopsis: Ground Penetrating Radar is a well studied and applied technique used in the last few decades. A downward looking antenna is moved across a surface while a detection sensor collects data, typically coil antennas in resonance. Many migration and focusing methods may be used to process data based on situational variables. Methods include hyperbolic summation, the Kirchhoff migration, the back-projection focusing, the phase-shift migration, and the w-k migration. The resultant vector field is plotted in three dimensions for visualization. This project will build open source software to make GPR inexpensively available for the general public, focusing on inexpensive hardware designs from Raspberry Pi, radio amplifiers, and 3d printers.

Client Business: Independent, No formal business structure, however the client has Web Development experience. Ambitious groups may add or subtract features to suit agile development. The client is flexible.

Sr Project A, Software development for Unix/Linux distributions. (Raspberry Pi)

Sr Project B, Software development for Windows and/or IOS distributions. (USB)

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or via email, [tonygalatti@gmail.com](mailto:tonygalatti@gmail.com) . Thank you for your consideration,  
- Tony Galatti :)

## SOAP Note Medical App

Proposal for UC Davis Computer Science Dept.

Volunteer Agile Development through Trello, Portions GNU/Open, Professional Modules

Proprietary. Student Royalty Negotiable.

### Project Value:

Simple, visual, mobile interface for recording medical notes for insurance reporting. Versions for Massage Therapists, Chiropractors, Dentists, Acupuncturists, EMTs, etc.

### Core Functions:

- 1 - Subjective Intake
- 2 - Objective Analysis
- 3 - Assessment Input
- 4 - Plan Input
- 5 - Written Output for Insurance Coding
- 6 - HIPAA Compliance
- 7 - Patient Profiles
- 8 - Scheduling and Billing

Synopsis: All medical professionals should take detailed notes. Some casual clinicians do not. A simple visual input, using a diagram of the body, can speed the process of report writing and procedural documentation. Photographs could be taken from mobile devices and inserted directly into patient profiles. Additionally, software can output the procedural data into a readable document for insurance reporting, adding billing codes directly into the text. To complete the suite, scheduling and billing may be integrated.

Client Business: Independent, No formal business structure, however the client has Web Development experience. Ambitious groups may add or subtract features to suit agile development. The client is flexible.

Sr Project A, Mobile App Development for Android or IOS

Students publish App for mobile market in client name.

Sr Project B, Desktop Software Development for Windows or Apple.

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## Lucid Dream Generator

Proposal for UC Davis Computer Science Dept.

Volunteer Agile Development through Trello, Portions GNU/Open

### Project Value:

Phone App to produce subsonic sounds multiplied with natural sleep noises to induce lucid dreams or various brainwave states. (Theoretical Research)

### Features:

- 1 - Frequency Generator
- 2 - Simple Sound Mixer
- 3 - Headphone Output
- 4 - Dream Log

Synopsis: Cognitive function of the brain operates on different wavelengths while awake vs dreaming. Higher frequencies (~16Hz) produce heightened awareness and faster reaction times. Lower frequencies(~6-10Hz) induce sleep and REM sleep (dreams, ~3-6Hz). This project will build a function generator to produce frequencies in the brainwave region, alone or to intermix with natural music or sleep sounds such as rain or ocean, etc. The output will optionally be mono, stereo symmetric and stereo asymmetric. The App will include a dream journal to record observations upon awakening. The goal is to test the hypothesis that introducing subsonic sound waves will change dream awareness.

Client Business: Independent, No formal business structure, however the client has Web Development experience. Ambitious groups may add or subtract features to suit agile development. The client is flexible.

Sr Project, Students publish App for mobile markets in client name.

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