

# Kyle Den Hartog

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**Software Engineer with a passion for information security, identity, and blockchain**

## Work Experience:

### **Information Security Engineer**

May 2016 – May 2017

ProCircular Inc., Iowa City, IA

- ❖ Programmed scripts, automated workflows, and improved business process efficiency to decrease vulnerability assessment times by 57.4%
- ❖ Conducted vulnerability assessments, external penetration tests, web application testing assessments, and red team engagements in an efficient manor allowing the company to reach profitability within 6 months
- ❖ Executed the creation of a product from concept to delivery for executive security awareness in 3 months
- ❖ Efficiently determined if clients were vulnerable to various web app vulnerabilities such as XSS, CSRF, RFI, LFI, code injection, authentication bypass, and others while utilizing the OWASP methodology
- ❖ Explored ISO 27001, NIST SP 800-53, and other compliance frameworks utilized for IT risk assessments, creation of standardized security policies, and regulatory compliance
- ❖ Delivered on time custom client reports with documented analysis of findings, vulnerabilities, exploits, gaps, risks, and recommendations that could be easily interpreted by clients with diverse technical backgrounds
- ❖ Collaborated with sales during client meetings, represented ProCircular at conferences, and conducted demonstrations and walkthroughs with potential clients to improve
- ❖ Reported directly to CISO and dotted line to CEO with regular mentoring sessions

## Skills:

- ❖ Strong understanding of network protocols such as IP, TCP/UDP, DNS, HTTP/S, and the OSI model
- ❖ Effective communicator capable of adapting content to the audience
- ❖ Dynamic and strategic problem solver capable of adjusting to find the necessary solution
- ❖ Solid knowledge of network security and application security principles and practices
- ❖ Competent with Windows, Mac OS X, and Linux operating systems
- ❖ Autodidactic learner with a willingness to grow

## Projects Summary:

### **Java programming projects:**

- ❖ Constructed a password manager using AES encryption and SHA512 hashing with open-source libraries
- ❖ Implemented a secure one-time-pad encryption scheme, one-time-password authentication scheme, and a RC4 stream cipher scheme
- ❖ Created Swift Shift, a mobile phone game available on the Google Play store

### **Python programming projects:**

- ❖ Wrote a web server that manually validates requests by parsing headers and provides a response
- ❖ Developed a peer-to-peer messenger chat client using UDP and TCP socket programming
- ❖ Made a python3 client API to communicate with a universal resolver for DID resolution from blockchains

### **Other projects:**

- ❖ Researched and drafted a framework to be used to quantify and compare a variety of identity systems
- ❖ Designed a personal website to host blog posts and project details in HTML/CSS/JavaScript

## Group Affiliations:

Rebooting Web of Trust, attendee

October 2017

ID2020 Summit, attendee

June 2017

University of Iowa Startup Games, participant

spring 2016

ACM Collegiate Programming Competition, Kirkwood CC team

fall 2014

## Education:

**University of Iowa**, Iowa City, IA

May 2017

BA in Computer Science