Ethan Gaebel

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Profile

Hardworking, driven computer science masters graduate, seeking a full time position working on a team developing innovative, high performance software using data analysis and/or machine learning in user facing applications.

Work Experience

August 2016 – Current

Google Inc — Kirkland, WA

Software Engineer on Cloud Security

- Worked with team to build and scale new product from ground up
- Responsible for designing notifications system from scratch
- Responsible for stress testing main product feature and driving optimization and bug fixes

August 2014 – May 2016

Virginia Tech — Falls Church, VA

Graduate Research Assistant in Complex Networks and Security Research Group (www.cnsr.ictas.vt.edu)

- Conducted research into wireless security and security in general; see Research Experience for specific projects

May 2015 – August 2015

Google — Mountain View, CA

Software Engineering Intern on Android Location & Context

- Designed and implemented Java Android application to visualize sensor data in time and space using the Awareness API
- Used multithreading and caching to optimize application performance while rendering tens of thousands of items

May 2014 – August 2014

Qualcomm — San Diego, CA

Software Engineering Intern on Linux Memory Performance Team

- Created software systems and tests to profile and analyze the memory system's performance in the Android kernel
- Worked with kernel profiling tools such as ftrace

January 2014 – May 2014

Virginia Tech — Blacksburg, VA

Android Development Undergraduate TA

- Assisted students with projects, assignments, and concepts
- Created slides, taught class, led lab, and created homework assignment on development for the Pebble watch
- Received Outstanding Undergraduate Teaching Assistant award

August 2013 – December 2013

Virginia Tech — Blacksburg, VA

Data Structures & Algorithms Undergraduate TA

- Assisted students with projects and concepts in office hours

May 2013 – August 2013

Qualcomm — San Diego, CA

Software Engineering Intern

May 2012 – September 2012

Harmonia — Blacksburg, VA

Software Engineering Intern

Education

Virginia Tech—Graduated May 2016
Master of Science
Computer Science and Applications
GPA: 3.63
Thesis Topic:
Looks Good to Me: Authentication for Augmented Reality

Virginia Tech—Graduated May 2014
Bachelor of Science
Computer Science
GPA: 3.44
Minor in Mathematics

Research Experience

Looks Good to Me: Authentication for Augmented Reality

- Bootstraps a pairing between a wireless signal and a face to authenticate augmented reality headset users by localizing a wireless signal and performing facial recognition on a face adjacent to the transmitted signal.

Privacy Preserving Deep Learning

- Uses neural network to extract the "style" from an image to identify an image as a spoof attempt or legitimate
- Used iris data in validation
- Used Lua and Torch to create and validate models

Courses of Note

- CS 4604 — Intro to Database Management Systems
- CS 4804 — Intro to Artificial Intelligence
- CS 5824 — Advanced Machine Learning
- CS 6604 — Spatial Data Management
- MATH 4404 — Applied Numerical Methods
- MATH 5454 — Graph Theory
- ECE 5454 — Optimization Techniques

Organizations

- IEEE Robotics, Software Captain—2013-2014
- IEEE Robotics, Software Team Member—2012-2013
- Upsilon Pi Epsilon Honor Society

Awards

- Outstanding Undergraduate Teaching Assistant
- Computer Science Resources Consortium Scholarship
- Dean's List (Fall 2011, 2013, Spring 2013, 2014)

Languages, Frameworks, & Tools

Languages: Java, Python, C, C++, MATLAB, LaTeX, Lua
Frameworks: Android, JUnit, OpenCV, Scikit Learn, Torch, Flask, SQLAlchemy, Arduino
Tools: Git, Android Device Monitor, Linux Tools, Wireshark