

Baran Usluel

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EDUCATION

Georgia Institute of Technology | Atlanta, GA *Aug 2017 – May 2021 (Expected)*

- Bachelor of Science in Electrical Engineering, with minor in Computer Science (AI concentration).
- GPA: 4.00
- Relevant Coursework: Computer Vision, Advanced Programming Techniques, Programming HW/SW Systems, Intro Artificial Intelligence, Microelectronic Circuits, Cryptographic Hardware

SKILLS

Programming: Java, C++, Python, MATLAB, C, PHP, Javascript, C#, VHDL, MIPS Assembly.
Platforms & Tools: Linux, Android, AOSP, OpenCV, OpenGL, OpenSL, PyTorch, Git, Perforce P4V, SQL.
Design & Simulation: NI Multisim, LTspice, ModelSim, EAGLE CAD, SOLIDWORKS, OpenSCAD.
Hardware: FPGA, PCB design, soldering, ARM microcontrollers, DragonBoard, Raspberry Pi, Arduino, 3D printing.
Languages: English (fluent), Turkish (native), Spanish (elementary).
Clubs: Chamber Choir, RoboJackets (Intelligent Ground Vehicle Competition, Electrical Team), Wreck Racing, IEEE.

EXPERIENCE

Undergraduate Teaching Assistant | Georgia Institute of Technology | *Atlanta, GA* *Jan 2018 – Dec 2019*

- Taught students and helped manage a course as a TA for CS 1371 (Computing for Engineers / MATLAB) for four semesters.
- Led efforts to redesign the course website using React, as a Senior Developer on the software dev team.
- Developed an automatic homework grader as the Lead Developer of an agile software development team with 8 TAs.
- Developed conversion utility in MATLAB for a legacy codebase, to enable the course's migration to a new CMS.

Software Engineer Intern | Facebook | *Menlo Park, CA* *May 2019 – July 2019*

- Developed automated audio test framework with Java and C++ for AOSP-based standalone Oculus VR devices.
- Leveraged OpenSL ES and other available audio APIs to process raw audio with various sampling formats.
- Implemented telemetry, bug reporting and automation framework integrations. Rolled out to OS and QA engineers.
- Performed bring-up of a system service, assisted in developing an AOSP HAL and implemented E2E tests for a new feature.
- Enhanced the OS bug reporter used by VR device testers with the ability to attach relevant multimedia files.

Software Engineer Intern | Qualcomm | *San Diego, CA* *May 2018 – August 2018*

- Developed an Android app with Java for display software testing, which ran 400+ existing Lua tests and 100+ new tests.
- Increased speed of developer-level tests 2.5x by eliminating overheads of existing workstation-based test framework.
- Implemented 2D, 3D and VR graphics tests with natural and generated content using OpenGL ES (GLES) and EGL.
- Added automated test validation, telemetry and automation integrations, and encryption protocol for sensitive content.
- Rolled it out over iterations and collected feedback – was actively being used by 30+ display software developers.

Web Developer | ADD PR Design | *Ankara, Turkey* *Dec 2014 – Mar 2017*

- Developed and maintained static and dynamic websites for 3 company clients, to help establish their online presences.
- Designed responsive themes for WordPress CMS with PHP, HTML, CSS, and Javascript.

Freelance Java Developer | *Ankara, Turkey* *Jan 2013 – Jan 2016*

- Built plugins for commercial, multi-player game servers using Java and the Bukkit API to add new gameplay functionality.
- Developed 100+ Java plugins (25,000+ lines) in total, for clients and as open-source projects (one with 750,000 downloads).

PROJECTS & ACTIVITIES

HackMobile | Qualcomm Intern Hackathon *Jul 2018*

- Led a team making an IoT facial-recognition system. Awarded 'Most Innovative Hack' and 'Top 10 Best Hack' from 60 teams.
- Leveraged Python and OpenCV for facial detection, with Microsoft's Face API for recognition, on a DragonBoard 410c.

2048 3D | Mobile and web game *Jan 2018*

- Developed a fully 3D version of the popular 2048 game using Unity and C#, for web and Android devices.

HackGT | Georgia Tech Hackathon *Oct 2017*

- Designed a stock portfolio visualizer for virtual reality (Oculus Rift) using Unity, C#, Python and a financial API.

Operation Catapult | Rose-Hulman Institute of Technology *Jul 2016*

- Led a team of 4 to build a robot that catches balls in the air. Awarded 1st place for 'Best Project' out of 40 teams.
- Implemented stereo vision software with C++ and OpenCV, built control circuit and assisted with mechanical design.