**Alexey Yermakov**

alexey.yermakov@colorado.edu | (408) 412 2188

947 English Sparrow Trail, Highlands Ranch, CO, 80129 | [www.epmaki.net/alexeyy](http://www.epmaki.net/alexeyy)

**EDUCATION**

**B.S. Computer Science** University of Colorado, Boulder, CO

**B.S. Applied Mathematics** Expected Graduation Date: May 2023

GPA: 4.0/4.0

**ENGINEERING EXPERIENCE**

**Workiva, Intern** May 2020 – August 2020

* Worked on new features for an internal developer portal site.
  + Upgraded quality of search results through search relevance using TF-IDF. (Golang)
  + Improved site functionality by introducing pagination. (Javascript, HTML, CSS, Golang)
  + Increased site reliability by preventing Cross Site Scripting (XSS) attacks. (Golang)
  + Enhanced page navigation by adding icons to search results. (Golang, HTML, CSS)
* Produced video to demo the team’s training project at the company’s internal developer conference. (Adobe Ai, Ps, Pr)

**Netflix Prize Project** March 2020 – April 2020

Matrix Methods (APPM 3310) – CU Boulder

* Successfully beat Netflix’s 2006 score for predicting user ratings using the same data set.
* Researched and applied advanced linear algebra and calculus topics (SVD and gradient descent).
* Wrote and optimized the entirety of a machine-learning algorithm in C++.
* Learned about, installed, and utilized, the C++ Boost library for data serialization.
* Link with final report: https://github.com/yyexela/MatrixProject.

**Arcade Machine Project** Oct 2018 – May 2019

Senior Project – ThunderRidge High School

* Designed and built an arcade machine cabinet from schematics to woodwork. (Google SketchUp)
* Wired joystick, buttons, screen, and Raspberry Pi, using online manuals.
* Configured and installed an operating system (Raspbian) to the arcade machine computer.
* Presented the final project to a board of judges, complete with a demonstration.

**Bluetooth Light Switch**

Personal ProjectJan 2018 – Feb 2019

* Designed and 3D printed a wall mount using schematics and CAD. (TinkerCAD)
* Designed wiring diagrams for the entire system for documentation and future use. (Fritzing)
* Improved existing Arduino open-source software by adding buffered input. (Arduino C++)
* Link: https://github.com/yyexela/Arduino-Bluetooth-Light-Switch.

**TECHNICAL SKILLS**

**Certificates**

* Linux Professional Institute Linux Essentials.

**Languages**

* C++, C, Golang, Bash, Java, Mathematica, JavaScript, HTML, CSS, MATLAB.

**Software**

* Linux, MS Windows, MacOS, Bash, Vim, GDB, Visual Studio Code, Cygwin, Adobe Illustrator, Adobe Premiere Pro, Adobe Photoshop, Audacity, MS Word, MS Excel, MS PowerPoint.

**LANGUAGES**

Fluent in English and Russian.