

KHINSHAN KHAN

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Education

Hunter College, The City University of New York

New York, NY

B.A. IN COMPUTER SCIENCE | GPA: 3.81/4.00

Exp. Jun. 2021

- Relevant Courses: Software Analysis and Design [and Data Structures] I + II, Discrete Structures, Applied Statistics, Functional Programming in OCaml, Logic Basis Programming, Computer Architecture
- Societies: Daedalus Scholar, Macaulay Business Club, Macaulay Computer Science Club, Hunter Geography Club, Anime Club

Stuyvesant High School

New York, NY

ADVANCED REGENTS DIPLOMA WITH HONORS | GPA: 90/100

Jun. 2018

- Relevant Courses: AP CS, AP Physics 1 & 2, AP Calc. AB, System Level Programming, Software Development, Computer Graphics
- Societies: Student Union, Parliamentary Debate Team, Stuyvesant Streaming Club, CyberStuy, Astronomy, Archery, Anime Club

Skills

- Languages** Python, OCaml, C++, JavaScript, HTML, CSS, C, Java
- Frameworks** Materialize, Bootstrap, Foundation, Flask, Jekyll
- Libraries** Vue.js, React, jQuery, D3.js
- Tools** Git, SQLAlchemy, SQLite3, Digital Ocean, Lean Prover

Notable Projects

OCamlLisp | OCaml, Menhir, OCamllex, Batteries

<https://github.com/kkhan01/OCamlLisp>

- Lisp interpreter implemented in OCaml
- Allows for REPL, chaining files, varargs, persistent and overwritten-able variables, complex and nexted symbolic expressions

Tableau[x] Visualizer | OCaml

Closed Source for Logic Class

- Logical entailment solver implemented in OCaml
- Using Dijkstra "Shunting Yard" algorithm, given a well-formed entailment statement, determine if the implications are true based off premises

Emacs Dashboard Elfeed | ELisp, Common Lisp Extensions

<https://github.com/kkhan01/emacs-dashboard-elfeed>

- Package to incorporate RSS/ Atom multiple feeds by custom filters into the emacs dashboard

G4Lyfe: Engine Mark II | Python, ImageMagick

<https://github.com/kkhan01/Engine-Mark-II>

- Custom compiler and semantic parser to read simple MDL command scripts to export to .png or .gif files for graphics engine
- Tool transforms and animates shapes and curves, taking in preset commands with arguments or imports of .obj files
- Simulates realistic lighting and shading in a 4D space, optimized with z-buffer and backface culling

Project Ångström | Python, uWSGI, Digital Ocean

Live: <http://angstrom.stuycs.org/>

- Scouting site for FIRST Tech Challenge (FTC) use as well as for local teams to use internally
- Provides statistical analysis of data from The Orange Alliance to allow for greater insights

Polybius | TypeScript, JavaScript, React

<https://github.com/kkysen/Polybius>

- The first browser rerouting download manager, customizable chrome extension
- Enables users to set up certain rules and have the rules automatically apply whenever downloading anything, else use the download directory

Activities & Interests

Hunter ACM

VICE PRESIDENT

May 2019 - Present

- Scheduling activities/ lessons and speakers for talks for members ranging from 20 to 250 people
- Working on a partnership with various CUNY clubs and affiliated organizations for a hackathon
- Created an offline usable website 'localhost-login' (link) in flask to make signins streamlined and easier to manage

Miscellaneous

- Hobbies** Helping people on discord (<https://discord.gg/programming>), hackathons, blogging
- Interests** Cooking, linguistics, mythology, fallacies, automation