

Konstantin Howard

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EDUCATION

- Princeton University**, Princeton, NJ June 2024
- Bachelor of Science in Engineering in Computer Science – Cumulative GPA: 3.8
 - Pursuing certificates in Russian, Eastern European, and Eurasian Studies (REEES) and Jazz Studies
 - Relevant Courses: COS 226 Algorithms and Data Structures, COS 217 Intro to Programming Systems, COS 324 Intro to Machine Learning, COS 454 Probabilistic Models of Cognition, COS 316 System Design, COS 432 Information Security, fourth-year Russian
- Derzhavin Institute**, St. Petersburg, Russia Summer 2021
- Intensive second-year Russian virtual summer language course through Princeton in St. Petersburg program
 - Wintersession virtual minicourse (January 2022)
- The Hotchkiss School**, Lakeville, CT June 2020
- Cum Laude – Cumulative GPA: 10.7 (A- average on an unweighted 12-point scale)
 - Relevant courses: AP Calculus, AP Physics C, Discrete Mathematics, Calculus-Based Statistics, AP Computer Science

SKILLS & INTERESTS

- **Skills:** UML design, technical literacy, Microsoft Office, Google Drive, manufacturing assembly; **Programming:** Java, C, C++, Python, Go, ARMv8, HTML, CSS; **Tools:** git, make, bash, gdb, Bootstrap, MagicDraw
- **Language:** Advanced Russian

EXPERIENCE

- EMTech Space**, Athens, Greece *Design and Development Intern* June-July 2022
- Learned operational simulator architecture and software design patterns by studying ESA standards and reverse-engineering UML models from C++ source code for REFASIM (generic spacecraft test build) Electric Pulse System
 - Developed simulator for Power Control and Distribution Unit subsystem of undisclosed spacecraft for testing: extracted software requirements from hardware document, designed system of models and interfaces using MagicDraw (UML), implemented design in C++, performed assembly tests
 - Authored Software Requirements Specification and technical report on my work, presenting to supervisors and CEO
- Princeton Computer Science Department**, *Grader* September 2022-present
- Grade coding assignments and exams for COS126 Intro to Computer Science
- Mendel Music Library**, *Circulation Assistant* September 2021-May 2022
- Ran circulation desk, assisted patrons, organized collection according to LC call numbers, performed independent projects
- Briartek Incorporated**, *Assembly Technician* June 2019-December 2020
- Manufactured man-overboard beacons, receivers, and direction finders contracting with US Navy and maritime industry
 - Technical work: Soldered, programmed, and tuned circuit boards; over-molded antennas and beacons
 - Lead independent production projects (Battery Back Ups)

PROJECTS

Personal Website: Ongoing effort to learn web development by creating my own website with HTML, CSS, and Bootstrap

Modeling the Perception of Similarity in Musical Chords: Used Python to implement and test different models against real data

Adaptive Replacement Cache: Implemented ARC algorithm in Go and analyzed performance with traces (simulated workloads)

These and more can be found on my GitHub: <https://github.com/KonstantinHoward>

LEADERSHIP & ACTIVITIES

- Princeton University** Fall 2020-present
- Alto Saxophone in small group ensemble and Creative Large Ensemble, Princeton Music Department (2020-23)
 - Volunteer saxophone instructor with Trenton Arts at Princeton; Ambassador for International Internship Program; Ambassador for One for the World Princeton Chapter
 - Panelist - presented two research papers at REEES Northeast Network 2022 Conference at Yale
- Boy Scouts of America, Troop 129** Spring 2013-Winter 2017
- Earned the highest rank of Eagle Scout, serving in various leadership positions including as Crew Leader at Philmont
 - Planned, organized, and led community service projects, camping trips, etc.
- The Hotchkiss School** Fall 2017-Spring 2020
- Maria Bissell Hotchkiss Scholarship Recipient
 - Faculty Prize (2020) – For seniors distinguished by their humility, kind-spiritedness and strength of character
 - Varsity Cross Country (5 years), Captain (2019)
 - Varsity Track and Field (3 years), Captain (2020)
 - Addressed/lobbied board of trustees to expand financial aid resources