# Konstantin Howard

Alexandria, Virginia

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#### **EDUCATION**

Princeton University, Princeton, NJ

- 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: Algorithms & Data Structures, Intro to Programming Systems, Intro to ML, System Design, Probabilistic . Models of Cognition, Information Security, Computer Architecture, fourth-year Russian

## The Hotchkiss School, Lakeville, CT

- Cum Laude Cumulative GPA: 10.7 (A- average on an unweighted 12-point scale) •
- Maria Bissell Hotchkiss Scholarship Recipient

## **SKILLS & INTERESTS**

- Programming: Java, C#, C/C++, Python, Go, ARMv8, HTML/CSS; Technical Skills: web development, UML design, technical literacy, manufacturing assembly; Tools: git, bash, Bootstrap, MagicDraw, Wireshark, NET, IIS, Duo API
- Language: Advanced Russian

## **EXPERIENCE**

CAM Capital, Princeton, NJ Software Engineer Intern

- Built UDP-based ping console app using C# in .NET Core, sending pings asynchronously and faster than built-in utility
- Built console app to facilitate secure drive sharing by remote employees, modernized website HTML/CSS, debugged IIS directory mapping between servers, penetration tested company cybersecurity services and my applications
- Implemented multifactor forms-based authentication for internal website using ASP.NET, C#, and Duo API hosted on IIS, allowing for monitoring of site activity by user and secure access for trading team outside of company network

### Princeton Slavic Department, Research Assistant

- Prepared glossaries and annotated readings for Russian courses
- Performed quantitative analysis of vowel patterns as stylistic devices in Russian literature

### EMTech Space, Athens, Greece Design and Development Intern

- Developed simulator for Power Control and Distribution Unit subsystem of ESA 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, Course Assistant
  - Assist students one-on-one with coding assignments and material for Data Structures and Algorithms and Intro Systems
  - Graded weekly coding assignments and exams for COS126 Intro to Computer Science (Fall 2022)

### Briartek Incorporated, Alexandria, VA Assembly Technician

- 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

### PROJECTS

HTTPS://GITHUB.COM/KONSTANTINHOWARD

Personal Website: Ongoing effort to learn web development by creating my own website using 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) Estimating Tumor Necrosis in Glioblastoma Histologies: Independent work to develop a CNN to classify tumor slide images

## **VOLUNTEER & ACTIVITIES**

- Saxophonist in small group ensemble and Creative Large Ensemble, Princeton Music Department
- Saxophonist in Hanoi Ragmen, awarding-winning DMV-based rock band
- Sexual Harassment/Assault Advising Resources & Education Peer, Princeton
- Volunteer saxophone instructor with Trenton Arts at Princeton
- International Internship Program Ambassador, Princeton
- Panelist presented two research papers at 2022 Russian, Eastern European, and Eurasian Studies Northeast Conference
- Captain of varsity track and cross country teams, The Hotchkiss School
- Eagle Scout, Troop 129 of Alexandria, VA

June 2024

June 2020

Summer 2023

June-July 2022

June-August 2023

September 2022-present

June 2019-December 2020