

## Zeyn Schweyk

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Piano Duo: [theplanoboys.com](https://theplanoboys.com), [Instagram](#), [Facebook](#), [YouTube](#), [LinkedIn](#), [Music Resume](#)

Personal: [zeyn.schweyk.com](https://zeyn.schweyk.com), [Projects](#), [GitHub](#), [LinkedIn](#)

### EDUCATION

#### The Johns Hopkins University and Peabody Institute of Music – GPA: 3.74/4.0

Baltimore, MD

B.S. in Electrical Engineering and Computer Science Double Major, w/ minoring in Music Performance

August 2022 – May 2026 (Expected)

#### Santa Barbara City College – GPA: 4.0/4.0

Santa Barbara, CA

2 A.A. degrees in Math & Science and Liberal Arts as Dual Enrollment High School Student, w/ over 60 GE credits completed

August 2018 – May 2022

#### Engineering Academy at Dos Pueblos High School – GPA: 5.0/5.0

Goleta, CA

August 2018 – May 2022

### WORK EXPERIENCE

#### Radio Frequency (RF) Software Intern w/ SECRET Security Clearance

Goleta, CA

Toyon Research Corporation

June 2022 - Present

- Starlink/OneWeb antenna setup and networking/firewall configurations across many routers with IPsec VPNs
- Electric motor design and testing using Ansys. Built Python codebase that sweeps through various design parameters to optimize performance for specific government contracts.
- Full-stack web app development (React JS and Python) to communicate with on-vehicle ROS nodes for geolocation tracking, sensor data collection, and data visualization, for defense research & testing
- Wrote desktop app to conduct experiments for antennas in an anechoic chamber with servo motors using C#, C++, VS & VS Code, .NET Framework.

#### Computer Science Course Assistant

Baltimore, MD

The Johns Hopkins University at The Whiting School of Engineering

Fall 2023, Spring 2025

- Intermediate Programming (EN.601.220) – assist students in class, hold weekly office hours, grade assignments, proctor exams in C & C++

#### Mechatronics Programmer for Science Museums across CA

Goleta, CA

Dos Pueblos Engineering Academy

August 2021 - June 2022

- Designed and created software for various exhibits to be displayed across museums in California, like the Exploratorium in San Francisco, as a HS Senior
- Implemented and deployed closed-loop feedback control (PID) systems, Apache web servers on Raspberry Pis, CRUD applications, client-server models, Python libraries to PyPI, and used Arduinos, various sensors and motors, and input devices
- Designed exhibit components with SOLIDWORKS and machined them w/ lathes, mills, & laser cutters, as needed
- View my [personal site](#) and [High School Portfolio](#) for a more detailed description of projects

#### Software Contractor

Santa Barbara, CA

Santa Barbara Control Systems, Chemtrol Division

December 2020 - May 2021

- Designed and created a time-clock system, suitable for any mid-sized company, used daily by employees and management w/ Python & SQL
- Implemented multiple versions of desktop applications compatible w/ Windows, Mac, & Linux. Dealt with Facial Recognition for automatic clocking in/out, automatic emails/alerts/database backups, regular employee reports linked to payroll, wage calculations, vacation & sick accrual & taken, tasks by employee & department, random motivational quotes, English & Spanish translations, and much more
- Pitched and sold system to CEO

#### ThePianoBoys (aka SBPianoBoys)

California

Classical Piano Duo w/ my brother

January 2014 - Present

- Perform solo, four-hands, & two-piano repertoire regularly at various venues, teach music to all ages, and [compose and arrange](#) works
- Competed in & won countless performance competitions, state level composition competitions, & various music festivals across CA, individually and as a duo
- Studied Chamber Music at The Music Academy of the West under faculty from Juilliard, Curtis, University of California Santa Barbara (UCSB), and other institutions

### ACHIEVEMENTS

- '25 JHU William H. Huggins Award in ECE
- '22-'26 JHU Clark Scholar Member & Recipient
- '22 Student Elected Representative for Mechanical engineering Undergraduate Student Council (MUSC) at JHU
- '22, '25 Santa Maria Philharmonic Showcase Winner & Concerto Performer
- '21 AP Scholar w/ Distinction
- '21 FIRST Robotics Tidal Tumble Semifinalist
- '21 Santa Barbara Double Piano Concerto Competition Winner
- '20 Music Teachers' Association of California (MTAC) Composers Today Symposium State Level Finalist
- '18 Jr. High Chess Tournament District Winner
- '18 Mock Trial Team County Winner as Pre-trial attorney
- '15 Jr. Black Belt in Kung Fu

### SPECIALIZED SKILLS

- **Programming languages:** C, C++, C#, Python, Java, JavaScript, MATLAB, SQL, HTML, CSS
- **Design:** SOLIDWORKS, OnShape, & basic CAM software, KiCad, Logisim, LTspice, Wordpress
- **Manufacturing:** Lathe, Mill, Band Saw, Laser Cutters, 3D Printing, Soldering
- **AWS:** Lambda, API Gateway, EC2, Lightsail
- **Business:** Business Operation & Marketing, Event Planning & Coordination, Public & Motivation Speaking, Bookkeeping, Microsoft Office / Google Suite
- **Other:** PID loops, DNS Records, HTTP Requests, APIs, Backend/Frontend programming, Apache Web Server Setup, Makefiles, gdb, Valgrind, Git, GitHub, GitLab

### LEADERSHIP & INVOLVEMENT

- Founder of JHU Algorithmic Trading team, JHU Racing Club (Baja) Electronics/Software teams, Robotics Club, mobile app development for various JHU startups, AIAA, classical music improv & composition, tennis, pickleball, and cross country