

JONATHAN ABRAMS

Software Engineer and Full-Stack Developer

 twoku.com |  jnthnab@gmail.com |  github.com/iotku |  Seattle, WA Area

EDUCATION

University of Washington

Bachelor of Science in Computer Science

Tacoma, WA

GPA 3.82 / 4.0 - 2025

PROJECTS

QuickClip | *Go (Golang), Wasm (WebAssembly), Multimedia, Gio UI, GUI*

2025 – Present

- Designed responsive graphical user interface via **Gio** immediate mode **GUI** Library
- Developed audio waveform visualizations to produce engaging graphical effects

AutoSpace | *Lua, Multimedia, Davinci Resolve*

2025 – Present

- Processed clips with **FFmpeg** to improve effectiveness of AI transcription-based editing
- Managed timeline spacing of video clips to ease and speed up video editing processes

Cryptography Suite Implementation | *Java, Cryptography, ECC*

2024

- Implemented SHA-3 and SHAKE cryptographic hash functions from specifications
- Utilized **elliptic curve cryptography** (ECC) scheme with NUMS-256 Edwards curve

Frontend Academic Projects (Team) | *JavaScript, Next.js, React, HTML5*

2022 – 2024

- Designed front-end interface for retrieving books using **Next.js** and **React** components
- Created a classic 2D side-scrolling game in **JavaScript** utilizing the **HTML5** Canvas

Backend Academic Projects (Team) | *Java, Node.js, Express, MySQL*

2022 – 2024

- Built **RESTful** Web APIs using **Node.js** and the **Express** framework
- Architected a **MySQL** database for local restaurants and related information

Mumzic | *Go (Golang), SQLite, JSON, VoIP*

2020 – Present

- Streamed audio as a digital jukebox for **Mumble VoIP** (Voice over IP) servers
- Produced tools and queries for reading associated metadata for the underlaying **SQLite** database

EXPERIENCE AND LEADERSHIP

Puget Sound Programming Competition (PSPC)

2023 – 2024

University of Washington

Tacoma, WA

- Competed in PSPC events solving **competitive programming** challenges under time constraints
- Collaborated in teams to rapidly develop effective solutions to challenging problems

Grays Harbor College eSports Club

2018 – 2020

Grays Harbor College

Aberdeen, WA

- Coordinated with college administration during meetings to secure funding for initiatives
- Performed business meetings and submitted necessary documentation while tracking membership

Computer Technician

2018

Westside Technologies

Aberdeen, WA

- Diagnosed and resolved issues with client operating systems and hardware
- Detected and removed viruses and restored systems to a clean state

TECHNICAL SKILLS

Languages: *Java, Go (Golang), SQL (SQLite, MySQL), Lua, JavaScript, TypeScript, Shell (Bash)*

Frontend: *Gio, JavaFX, Next.js, React, HTML5, CSS3*

Backend: *Express, Node.js, RESTful APIs, FFmpeg, Spring*

Cloud/DevOps: *Amazon AWS (EC2, RDS, Lambda), GitHub Actions, Secure Access (SSH), Virtualization*

Tools: *Git, Linux, Docker Containers, JUnit, Postman, VS Code, Neovim, IntelliJ*