

# Danyal Ahmed

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## Skills

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- **Programming Languages:** Python (including Pandas and Matplotlib), React.js, TypeScript, JavaScript (ES6), HTML/CSS including Tailwind CSS, and Java
- **Tools & Technologies:** Docker, RESTful APIs, Cloud Environments, Git, Linux, YAML, IntelliJ
- **Database Knowledge:** SQL including PostgreSQL and MySQL, and NoSQL databases including MongoDB
- **Other:** Arduino and circuit design including basic C for integrated systems, Blender for 3D design, 3D Printing

## Education and Certifications

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Northeastern University ◇ Boston, MA  
*Master of Computer Science*

Expected Dec 2026

University of Maryland ◇ College Park, MD

2019 - 2022

*Bachelor of Economics | Minor: Astronomy | College Park Scholar (Life Sciences)*

Selected Coursework: Introduction to Computing, Object-Oriented Programming I, Computer Programming via the Web

**Professional Certifications:** AWS Cloud Practitioner, Google IT Certificate

## Projects

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### Espresso Machine Modification

- Modified Gaggia Classic Pro with STM32 microcontroller to track pressure, temperature, and flow rate over time
- Rewired internals and built custom low-voltage control loop to allow controller to read aftermarket thermocouple and pressure sensor, while also being able to control pump and boiler for absolute control over machine's parts
- New system now allows creation of custom flow profiles, mass estimation, and pre-infusion, for absolute control

### YouTube Clone – Deployed on Google Cloud and Firebase

- Developed video streaming clone using ffmpeg processing via Node.js in Google Cloud Run using Pub/Sub and Cloud Storage with Firebase Auth
- Designed and implemented microservice architecture for secure data validation and transfer among Google Cloud Services
- Implemented front-end in React and Next.js, with REST APIs via Firebase Functions, including user authentication with Google sign-in, video upload, metadata transferal, and communication via Pub/Sub to reduce instance load

## Professional Experience

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**Manager** - Magoo's Pub & Eatery

2018 – 2024

- Supervises teams of up to 6 employees serving 200+ clients per day
- Designed training processes and onboarding for 20+ new employees
- Completes extensive sales accounting and vendor communication, leading to increased responsibility as keyholder and daily lead management of the restaurant

**Co-Founder** - Library of Babel Tapes

2017 – 2019

- Worked with co-founder to contact and promote artists, as well as price, convert, and distribute cassettes to customers and distributors
- Oversaw and organized revenue streams using Shopify and Stripe, as well as the allocation of funds towards inventory, supplies, distribution, and artist compensation
- Led initiative to build outreach and expand artist/vendor network in Boston industrial music community that led to a 150% increase in revenue after first year of business