BENJAMIN PETRILLO

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Available: May - December 2025

EDUCATION

Northeastern University — Boston, MA
Candidate for a Bachelor of Science in Computer Science — *Sep 2022 – Expected May 2026*
Honors: Dean's List – **GPA:** 3.65/4.00
Coursework: Data Structures & Algorithms, Object-Oriented Design, Distributed Systems, Computer Systems

TECHNICAL SKILLS

Languages: Java, Go, TypeScript/JavaScript, Python, HTML/CSS, C++
Frameworks: React, React Native, Next.js, Spring Boot, FastAPI, Node.js, Docker, Terraform, JUnit, Jest
Technologies: AWS EC2, PostgreSQL, MongoDB, Prisma, Firebase, Git, Jetbrains IDE, Postman

EXPERIENCE

Generate Product Development — Boston, MA
Software Technical Lead — *Dec 2024 – Present*
Software Engineer — *Sep – Dec 2024*
- Lead a team of 6 engineers in the development of a mobile app for a real client using React Native and Golang
- Review 150+ applications and conduct 7 technical interviews for potential engineers, ensuring fair evaluation
- Develop ~18 CRUD endpoints for authentication, user profiles, and venue interactions for a nightlife platform
- Utilize react-navigation to create mobile navigation stacks, leveraging Supabase and JWTs for user auth
- Complete weekly scrum sprints with an agile team of 12 to adhere to ambitious project deadlines & code reviews

FirstGlance by Literally Helping Startups — Boston, MA
Software Engineer Co-op — *Sep – Dec 2024*
- Develop and maintain 25 OpenAPI-compliant REST endpoints with FastAPI, enforcing strict type validation
- Create 30+ React components based on Figma designs for a metric-based startup discovery platform in Next.js
- Transition legacy infrastructure with raw Firebase queries to PostgreSQL with secure, endpoint-protected access
- Leverage pytest and bun-test to develop performance and API-level test suites, achieving 88% coverage
- Utilize Terraform to automate software deployment to AWS EC2 instances, adhering to IaC best practices

Khoury College of Computer Sciences — Boston, MA
Teaching Assistant – CS3500 and CS2510 — *Jan – Jul 2024*
- Direct 5 lab sections of 40+ students, conducting lecture-style sessions on software development best practices
- Grade 30+ assignments and lab activities weekly, collaborating with professors on grading rubrics and activities
- Hold office hours for one-on-one mentoring on software engineering, data structures, and MVC patterns

PROJECTS

Fragro – *Rust, TypeScript, Next.js, PostgreSQL, TailwindCSS, shadcn/ui* — **Dec 2024 – Present**
- Developing a full-stack code snippet sharing platform, with cloud syncing and a customizable VSCode extension
- Spearhead landing page, dashboard, lazy loading components using Next.js SSR per Figma & custom branding
- Streamline auth flow with Auth.js and custom refresh tokens, supporting multiple OAuth 2.0 providers

Nightlife – *Go, React Native, PostgreSQL, Docker, Supabase* — **Sep – Dec 2024**
- Develop a mobile app utilizing the Expo SDK allowing users to rate, review, and discover nearby nightlife venues
- Utilize Google Maps to populate internal PostgreSQL database with data for 3000+ venues across the USA
- Model and design database architecture using Lucidechart, identifying relationships for infrastructure scalability

Hexagonal Reversi – *Java, Swing, JUnit* — **Nov – Dec 2023**
- Leverage MVC design patterns to develop the game Orthello, integrating observer patterns for data encapsulation
- Engineer 200+ sanity, unit, and mock tests to ensure code correctness, find edge cases, and validate design choices
- Adjust to introduction of external codebase using adaptor patterns, integrating foreign strategies and coordinates

Elixir Music – *Java, Lavalink, Javalin, TypeScript, MongoDB* — **May 2022 – Aug 2024**
- Develop a multithreaded Discord music application on an agile team serving 350,000+ users & 500+ servers
- Leverage multithreading for concurrent audio streams across voice channel clusters with Lavalink audio managers
- Implement a custom playlist API with CRUD operations using MongoDB and bearer token authentication