BULENT YESILYURT

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EDUCATION

UNIVERSITY OF CALIFORNIA, LOS ANGELES (UCLA)   Los Angeles, CA
Bachelor of Science, Computer Science, GPA: 3.7   *Expected June 2026*
- **Relevant Coursework**: Data Structures and Algorithms, Operating Systems, Programming Languages, Software Construction, Computer Networks, Computer Security, Computer Architecture, Deep Learning, Compiler Construction, Stochastic Processes, Linear Algebra
- **Clubs/Organizations**: ACM Cyber, Infinite Finance, Undergraduate Math Society

TECHNICAL SKILLS AND INTERESTS

- **Languages & Dev Tools**: Python, C++, JavaScript, Java, HTML, CSS, C, Swift, Markdown, Bash, Postman, Emacs, VS (Code), Git, GDB, GNU
- **Technologies/Frameworks**: MongoDB, Firebase, AWS, React.js, Node.js, PyTorch, Docker, Webpack, Flutter, Linux (Arch, Ubuntu), Frida
- **Personal Skills & Interests:** Problem Solving, Teamwork, Attention to detail, AI/ML infrastructure, security automation, developer tools

WORK EXPERIENCE

PRUDENTIAL FINANCIAL   Newark, NJ
Software Engineer Intern   *June 2025 - August 2025*
- Hardened **Python middleware for OAuth 2.0** (authorization code and client credentials) with token validation and end-to-end pytest coverage, **enhancing reliability for ~42%** of enterprise API interactions
- Built an **encryption/decryption SDK in Java** backed by HashiCorp Vault (Transform & Transit engines) to facilitate at-rest and in-transit data protection across backend services
- Collaborated with different frontend teams to create a **TypeScript caching library** that synchronized shared state across multiple microfrontends in the main application**, reducing data fetches and accelerating page load times by 35%**

2SIGMASCHOOL   Remote
Software Engineer Intern   *June 2024 - September 2024*
- Designed and developed **an end-to-end browser-based Python IDE** in React using Pyodide to safely execute user code and render plots **from 15+ Python libraries**, enabling high school students across the country to learn Python directly in the browser
- Eliminated UI blocking using three dedicated Web Workers and a lightweight virtual DOM prototype, **improving run latency by 50%** to boost classroom usability
- **Began contributing to Pyodide's open-source project**, improving its runtime stability for browser-based Python execution

KOMMU   Remote
Software Consultant   *December 2023 - February 2024*
- Built **full-stack authentication** for web (React, Node) and iOS (Swift, MVVM), supporting email/password and **phone-based SSO**
- Introduced JWT-based access and refresh tokens**, reducing account retrieval time by 80%**
- Optimized Firebase data access and indexing, **lowering read counts by 40%** and improving perceived load times

PERSONAL EXPERIENCE AND PROJECTS

UCLA Computer Security and Privacy Lab | *C/C++* | *Java* | *JavaScript* | *Frida/Ghidra*
Undergraduate Researcher   *June 2025 - Present*
- Contributed to **BadUnboxing (Google Research),** extending its unpacking framework with detection of native Dex loading
- Led research into uniform unpacker design through developing Frida JavaScript scripts to hook onto **dlopen** calls, supporting automated feature extraction for **AI-driven Android malware analysis**
- Investigated native library behavior in Android packers through **Ghidra decompilation of C/C++ binaries**

2ndPulse | *Flutter* | *Firebase Cloud (GCP)* | *Swift* | *AWS Lambda*
CTO and Co-founder   *June 2024 – June 2025*
- Selected for **Telora Fellowship from 900+ applicants (acceptance rate <1%) and raised $40k**
- **Built and launched an iOS app** in Flutter leveraging Firebase to aggregate and unify user connections from LinkedIn, Gmail, WhatsApp, and other platforms into a single application
- Developed the backend **using Firebase Firestore** for account and connection cloud storage, **AWS Lambda** for web scraping, **Firebase Cloud Functions** for real-time notifications, and **PyTorch to rank and filter connection requests** using a recommendation model

TxtEdit | *C* | *tree-sitter* | *Python* | *MCP*   *May 2025 - Present*
- Developed a performant text editor in C with tree-sitter-powered syntax highlighting and dynamic editing
- Engineered a **Trie-based autocomplete feature with O(1) lookups** and optimized row-buffer management, **enhancing edit latency by 40% on 1k+ line files**
- Integrated **agentic AI editing capabilities via the Claude API in Python** to facilitate natural-language assisted edits

TravelBrain | *React.js/Node.js* | *JavaScript* | *MongoDB*   *April 2023 – May 2023*
- Built a **tailored travel recommender** which considers user travel preferences to suggest travel itineraries, **submitted to LA Hacks 2023**
- Leveraged MERN(**MongoDB, Express.js, React/Node.js**) as the tech stack, **OpenAI API** to generate travel itineraries, and **Google Maps API** to suggest the shortest path between all locations in itinerary
- Supported **persistent storage** of past plans and employed **custom authentication**, enabling **100+ saved trips** and user re-access