

Aniketh Bandlamudi

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EDUCATION

University of Virginia

Charlottesville, VA

B.S. in Computer Science & Applied Mathematics, School of Engineering and Applied Science

Expected May 2030

- *Relevant Coursework:* APMA 2120 (Multivariable Calculus), CS 2100 (Data Structures & Algorithms 1)
- *Activities:* UVA Solar Car Team (Embedded Software), IEEE UVA Student Chapter (Member)

EXPERIENCE

Founder & Engineer

Jan. 2026 – Present

Pragmatic (aniketh.net/pragmatic)

Remote

- Building a zero-dependency durable execution runtime in Rust that lets nondeterministic AI agents survive crashes and resume exactly where they left off
- Designed an append-only step journal at 230 ns/append with flat latency through 1M entries, passing a 1000/1000 replay-determinism test suite
- Formalized agent execution and replay with a probabilistic process calculus
- Incorporated as Pragmatic Research, Inc. (Delaware C-corp) in Aug. 2026

Engineering Intern

May 2026

Alarm.com

Tysons, VA

- Configured and integrated home security devices for hardware QA testing
- Soldered buck converters and embedded boards in the hardware lab
- Built an internal software tool to manage lab devices, streamlining QA/QE-to-device-engineering testing cycles

Founder & President

May 2022 – Present

OCRadar (ocradar.com)

Vienna, VA

- Founded a nonprofit and led a team of 4 building a computer-vision mobile platform for early oral cancer detection
- Published research on a CNN that detects oral squamous cell carcinoma with 98% accuracy, paired with custom hardware for consistent image capture ([arXiv:2510.16235](https://arxiv.org/abs/2510.16235))
- Featured in outlets reaching millions: WTOP, Korea Times, Vision Times China, FCPS News, Tech Roast Show

Software Lead (FRC) / R&D Captain (FTC)

2022 – 2026

Oakton Robotics

Vienna, VA

- Led software for a 25-member team, owning systems engineering and control software for competition robots
- Oversaw robot design and programming over four seasons; earned finalist, innovation, and creativity awards
- Ran STEM workshops and community outreach programs

PROJECTS

Hypnagogia | *Python, Brian2, TypeScript*

[Live](#) | [GitHub](#)

- Simulated a whole *Drosophila* brain in Brian2 (144K neurons, 21.9M synapses from the male CNS connectome) to test whether a learned odor memory reactivates on its own during sleep
- Scored reactivation against shuffled-connectome, unlearned-weight, and random-ensemble controls; reported negative results in full, including two mis-specified cells in the published model

Haze | *Swift, iOS, watchOS*

[Site](#) | [App Store](#)

- Solo-built and shipped a 5-star iPhone and Apple Watch weather app with widgets, Live Activities, and Siri
- Blends ECMWF, GFS, and ICON models, corrects with NWS station data, and sends background rain alerts

Splatify | *ffmpeg, COLMAP, Brush*

[GitHub](#)

- Built a fully local video-to-3D pipeline for Apple Silicon that turns phone videos into interactive Gaussian splat scenes viewable in any browser, with no cloud processing

IllumiSign | *Hack the Nest 2025 Winner*

[Devpost](#)

- Won Hack the Nest 2025 with a browser-based communication tool that uses real-time eye tracking to let ALS patients select letters and generate speech without specialized hardware

TECHNICAL SKILLS

Languages: Rust, Python, Swift, C++, Java, HTML/CSS/JavaScript

Technologies: PyTorch, Computer Vision, iOS/macOS Development, Distributed Systems, Embedded Systems

Hardware: Soldering, Robotics Control Systems, PCB Design

Developer Tools: Git, Xcode, Claude Code, Codex, ffmpeg, COLMAP, VS Code